



Carter H. Strickland, Jr.  
Commissioner

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Friday, February 14, 2014

Ms. Diane L. Huffman, Branch Chief  
Water Enforcement Branch  
WWPD/WENF  
United States Environmental Protection  
Agency, Region 7  
901 N. 5th Street  
Kansas City, KS 66101

**Re: 2013 Annual Monitoring, Record Keeping and Reporting  
Requirements of the Federal Standards for the Use or Disposal of  
Sewage Sludge, 40 CFR Part 503**

Dear Ms. Huffman:

Pursuant to Title 40 Code of Federal Regulations, Part 503 Federal Standards for the Use or Disposal of Sewage Sludge (40 CFR Part 503), the New York City Department of Environmental Protection (DEP) is submitting herewith, one annual report for each of the fourteen (14) Publicly Owned Treatment Works (POTWs) operated under the direction of DEP.

As a generator of sewage sludge, DEP has provided the following requisite information for the reporting period of January 1, 2013 through December 31, 2013:

- a. Amount of sewage sludge generated in metric tons, expressed as a dry weight;
- b. Use or disposal practices employed;
- c. Amount of sewage sludge that went to each use or disposal practice;
- d. Name and address of the preparer or land applier who received the sewage sludge;
- e. Name and address of the land applier and owner/operator of the disposal site;
- f. Analytical results of the pollutant concentrations in the sewage sludge, reported as milligrams per kilogram (expressed as a dry weight). Also included are the prescribed analytical methods, frequency of sewage sludge sampling/monitoring and the types of samples collected;

- g. A listing of all relevant environmental (Federal, State or Local) permits and/or construction approvals received and/or applied for.

If you have any questions, comments or require additional information, please contact Mr. Allen Deur, P.E., Chief, Division of Operations Support, Bureau of Wastewater Treatment, at (718) 595-4295 or [adeur@dep.nyc.gov](mailto:adeur@dep.nyc.gov).

Sincerely,



Vincent Sapienza, P.E.  
Deputy Commissioner

Attachment

- c: Diane Hammerman, Director, Regulatory Compliance & Administration, BWT  
Allen Deur, Chief, Division of Operations Support, BWT  
Theresa Tam, Chief, SPDES Compliance Section, BWT

**City of New York**  
**DEPARTMENT OF ENVIRONMENTAL PROTECTION**  
**Bureau of Wastewater Treatment**

US EPA 40 CFR Part 503  
Use or Disposal of Sewage Sludge  
2013 Annual Report

Prepared for

**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**

Prepared by

City of New York, Department of Environmental Protection  
Bureau of Wastewater Treatment  
SPDES Compliance Section  
96-05 Horace Harding Expressway  
Corona, New York 11368  
(718) 595-5056



February 2014

# **INTRODUCTION**

**City of New York  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
Bureau of Wastewater Treatment**

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US EPA 40 CFR Part 503  
Use or Disposal of Sewage Sludge  
2013 Annual Report

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February 2014

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## **I. BACKGROUND AND OVERVIEW**

The New York City Department of Environmental Protection (DEP) owns and operates fourteen Wastewater Treatment Plants (WWTPs) and eight sludge dewatering facilities located throughout the five boroughs of New York City (NYC). For this reporting period, the Jamaica and Tallman Island Dewatering Facilities were shut down due to treatment plant upgrade construction. The dewatering facilities are equipped with centrifuges that remove a portion of the water from the liquid sludge to reduce its volume, thereby facilitating a more efficient and cost effective land-based Sludge/Biosolids Management Program. Dewatered sludge, or biosolids, is a nutrient rich, semi-solid material that is generated during the wastewater treatment process and can be beneficially applied to the land as a soil conditioner and fertilizing agent.

DEP contracts out the removal of its biosolids. All land application contractors have applied additional treatment to NYC biosolids regardless if it met the requirements of Process to Significantly Remove Pathogens (PSRP). During calendar year 2013 (CY2013) all biosolids were provided to the following contractors:

<b>Contractor</b>	<b>Contract No.</b>	<b>End use</b>
Coastal Distribution (Coastal)	1250-BIO	Landfill
Tully Environmental (Tully)	947ADM3	Lime Treatment
Environmental Protection & Improvement Company (EPIC)	1247-BIO	Landfill
Interstate Waste Services	1280-BIO	Landfill
WeCare Organics	1236-BIO	Mine Reclamation
WeCare Organics	1308-BIO	Landfill / Beneficial Use

Details on the biosolids end use by the six contractors used during CY2013 are:

### **1. Coastal Distribution (Coastal) under Contract 1250-BIO** *(Contract expired May 13, 2013)*

Coastal Distribution (Coastal) performed transportation and disposal services for biosolids generated at the NYC Dewatering Facilities. The contractor had been disposing of the biosolids at the Brookville Landfill located in Brookhaven, New York until NYSDEC ordered the landfill to stop accepting biosolids material in March 2011. Coastal Distribution contracted the removal and disposal of biosolids to EPIC, Northeast Hauling and DJW Transporters. The biosolids were disposed of in Sussex County, Virginia and Pennsylvania.

### **2. Tully Environmental (Tully) under Contract 947ADM3** *(Contract expired June 30, 2013)*

Tully Environmental (Tully) transported their biosolids allocation to the Kyler Blackwood and the KylerStoltzfus Facilities in Pennsylvania. These facilities, which are owned and operated by WeCare Organic LLC, used alkaline stabilization (lime treatment) and then applied the biosolids products for mine reclamation at the Bernice Site in Cherry Sullivan County, PA, the Pottersdale Site in West Keating and Fisher Mining Site in English Center, PA.

The alkaline stabilization process is a Pennsylvania Department of Environmental Protection approved Class A biosolids process that is cited in 25 Pa. Code § 271.932 (a)(4) or (6). The process has been approved specifically by the U.S. Environmental Protection Agency (EPA) as an Alternative 6 method to achieve Process to Further Reduce Pathogens (PFRP), producing Class A biosolids Product (per 40 CFR 503.32). Lime materials are added to biosolids to keep the pH above 12 for at least 72 hours. During the 72 hour period, the temperature of the mixture must be at least 52°C for at least 12 hours. An exothermic reaction results from mixing the alkaline material with the biosolids. External heat sources are not required. The final mixture holds a total solids concentration of at least 50%.

The alkaline stabilization process is similar to other methods which mix biosolids with alkaline materials such as lime. The lime reacts with the biosolids generates heat and increases the pH of the biosolids. The combination of heat and high pH serves to eliminate viable pathogenic organisms. Due to the lime addition, the resultant product is used primarily as a lime substitute in agriculture. These treatment facilities are relatively simple, consisting of storage facilities, mixing equipment, and an area where the material is allowed to cure.

As described above, the combination of high pH and elevated temperatures over sufficient time inactivates pathogens to below-detectable levels. However, the process is reported to permit survival of microflora, an organism that is important for long-term odor control and soil fertility. The microflora helps prevent odor production after the pH of the treated biosolids declines.

### **3. Environmental Protection & Improvement Company (EPIC) under Contract 1247-BIO**

Environmental Protection & Improvement Company (EPIC) performed transportation and disposal services for biosolids generated at the NYC



Dewatering Facilities. The contractor disposed of the biosolids at landfills including: Tunnel Hill Partner in New Lexington, Ohio, Waste Industries in Mauk, Georgia, Envirosolutions (ESI) in Coalton, Kentucky, and GROWS in North/Tullytown Landfill in Morrisville, Pennsylvania.

**4. Interstate Waste Services (Interstate) under Contract 1280-BIO**

Interstate Waste Services (Interstate) performed transportation and disposal services for biosolids generated at the NYC Dewatering Facilities. The contractor disposed of the biosolids at landfills including APEX in Ohio, GROWS in Morrisville, Pennsylvania and Western Berks, Pennsylvania.

**5. WeCare Organics under Contract 1236-BIO**

WeCare Organics, LLC (WeCare) transported and processed the NYC biosolids via Alkaline Stabilization process at the Blackwood (Blackwood) Farms facility in Tremont, Pennsylvania and other sites.

Blackwood is a facility which has a fully permitted site by the Pennsylvania Department of Environmental Protection (PADEP) to process Class A biosolids via the Kyler Environmental Services, LLC. Kyler is wholly owned by WeCare and the permit is still under the Kyler name.

Lime and alkaline admixtures were added to the biosolids to achieve pH, temperature, and final total solids requirements. The addition of coal fly ash or wood ash helps adjust the final total solids concentration, helps control odors, and improves final product characteristics such as color and texture. Due to the lime addition, the resultant product is used primarily for mine reclamation. A moveable soil shredder is used to further process the material to produce a marketable product if needed.

WeCare staff is responsible for transporting and administering the on-site utilized end-products. Transport of incoming waste streams and remaining outgoing end-product will mainly be performed by third party haulers. As the process further develops, WeCare may take part in some of this hauling as well.

**6. WeCare Organics under Contract 1308-BIO**  
*(New contract effective November 11, 2013)*

WeCare Organics, LLC (WeCare) performed transportation and disposal

services for biosolids generated at the NYC Dewatering Facilities. The contractor disposed of the biosolids at landfills including Tullytown, Pennsylvania, Grows North, Pennsylvania, and Grand Central Sanitary Landfill in Pennsylvania. This contract is for beneficial use, landfill or a combination of both. In CY2013, the biosolids handled under this contract were only sent to landfills.

## **II. SLUDGE HANDLING EQUIPMENT**

### **A. 26<sup>th</sup> Ward Dewatering Facility**

- ▶ thirteen (13) centrifuges; solid bowl type - rated @ 240 gpm
- ▶ ten (10) storage bins - working capacity 2,570 ft<sup>3</sup> each
- ▶ two (2) truck loading bays; pass through type
- ▶ two (2) truck loading scales (1 per bay) - 100 ton capacity each
- ▶ twenty (20) truck loading slide gates (10 per bay) - 3' L x 2' W
- ▶ one (1) scale room; automated
- ▶ four (4) thickeners; gravity type, circular - 70' diameter each –not all are necessarily used but are available.
- ▶ two (2) digesters; fixed cover type (primary) - 86' diameter, 191,500 ft<sup>3</sup> each
- ▶ two (2) digesters; fixed cover type (primary or secondary) - 86' diameter, 191,500 ft<sup>3</sup> or 186,000 ft<sup>3</sup> each

Regarding the above description: 26W has two primary and two primary/secondary digesters. Current operations utilize 3 as primary and 1 as a secondary digester. The volume of the swing digester is determined by its use. Therefore, if 26W is using it as a primary digester its volume is the same as the other two primaries (191,500 cubic feet each). If a tank is used as a secondary its volume is 186,000 cubic feet. However, these volumes are listed in the O&M but 26W uses more conservative values to calculate the detention time.

- ▶ four (4) heat exchangers
- ▶ six (6) mixing units; gas compressor type mixers (1 per digester) (none working)
- ▶ three (3) storage tanks; 86' diameter, 188,000 ft<sup>3</sup> each
  - Tank 1S is used for house sludge and PSRP boat sludge (RK)
  - Tank 2S is used for JA pump over sludge and non-PSRP boat sludges
  - Tank 3S is used for CI pump over sludge only

In addition to the primary equipment listed above, the City operates various ancillary facilities and equipment at 26<sup>th</sup> Ward that include; a docking facility which can accommodate each of the three (3) liquid sludge vessels used by the City to transport liquid sludge from the “guest” WWTPs (without dewatering facilities) to the “host” WWTPs (with dewatering facilities) and three (3) liquid sludge storage tanks. Additionally, there are two force mains that are used to pump liquid sludge from Jamaica and Coney Island to 26 Ward.

***B. Bowery Bay Dewatering Facility***

- ▶ four (4) centrifuges; solid bowl type - rated @ 240 gpm
- ▶ two (2) storage bins - working capacity 4,325 ft<sup>3</sup> each
- ▶ one (1) truck loading bays; single entry type
- ▶ one (1) truck loading scale - 100 ton capacity each
- ▶ four (4) truck loading slide gates - 3' L x 2' W
- ▶ one (1) scale room; automated
- ▶ eight (8) thickeners; gravity type, circular - 70' diameter, 48,760 ft<sup>3</sup> each
- ▶ four (4) digesters; fixed cover type (primary) - 81' diameter, 197,710 ft<sup>3</sup> each (Note: one digester, No. 5, remains out of service in 2011)
- ▶ four (4) heat exchangers; (1 per digester) - 2.6 Mbtu/hr
- ▶ six (6) storage tanks, two with fixed cover, four open tanks - 2 @ 81' diameter, 2 @ 70' diameter, 2 @ 64.75' diameter (Note: one storage tank (No. 3) is being used as a primary digester and two storage tanks (Nos. 9 and 10) are being used for centrate storage in 2011)

***C. Hunts Point Dewatering Facility***

- ▶ thirteen (13) centrifuges; solid bowl type - rated @ 240 gpm
- ▶ ten (10) storage bins - working capacity 2,570 ft<sup>3</sup> each
- ▶ two (2) truck loading bays; pass through type
- ▶ two (2) truck loading scales (1 per bay) - 100 ton capacity each
- ▶ twenty (20) truck loading slide gates (10 per bay) - 3' L x 2' W
- ▶ one (1) scale room; automated
- ▶ twelve (12) thickeners; gravity type, circular - 65' diameter, 33,300 ft<sup>3</sup> each (6 utilized)
- ▶ four (4) digesters; fixed cover type (primary) - 118' diameter, 369,000 ft<sup>3</sup> each (3 utilized)

- ▶ four (4) heat exchangers
- ▶ five (5) storage tanks; varying capacities 115,000 to 373,000 ft<sup>3</sup> each

In addition to the primary equipment listed above, the City operates various ancillary facilities and equipment at Hunts Point that include; a docking facility which can accommodate each of the three (3) liquid sludge vessels used by the City to transport liquid sludge from the “guest” WWTPs (without dewatering facilities) to the “host” WWTPs (with dewatering facilities) and two (2) liquid sludge storage tanks.

#### ***D. Jamaica Dewatering Facility***

For this reporting period, the Jamaica Dewatering Facility has been shut down due to treatment plant upgrade construction.

#### ***E. Oakwood Beach Dewatering Facility***

- ▶ four (4) centrifuges; solid bowl type - rated @ 300 gpm
- ▶ two (2) storage bins - working capacity 4,325 ft<sup>3</sup> each
- ▶ one (1) truck loading bays; pass through type
- ▶ one (1) truck loading scale - 100 ton capacity each
- ▶ four (4) truck loading slide gates - 3' L x 2' W
- ▶ one (1) scale room; automated
- ▶ two (2) thickeners; gravity type, circular - 70' diameter, 47,340 ft<sup>3</sup> each
- ▶ three (3) digesters; fixed cover type (primary) - 60' x 60' square, 114,400 ft<sup>3</sup> each
- ▶ four (4) heat exchangers; external jacket type (1 per digester & 1 on standby) - 1.8 Mbtu/hr
- ▶ six (6) mixing pumps - (1 per primary digester, three on standby)
- ▶ three (3) storage tanks; - 2 @ 50' diameter, 53,800 ft<sup>3</sup> each; 1 @ 75' diameter, 110,390 ft<sup>3</sup>

In addition to the primary equipment listed above, the City operates various ancillary facilities and equipment at Oakwood Beach that include a force main that are used to pump liquid sludge from Port Richmond to Oakwood Beach.

#### ***F. Red Hook Dewatering Facility***

- ▶ two (2) centrifuges; solid bowl type - rated @ 120 gpm
- ▶ two (2) storage bins - working capacity 1,750 ft<sup>3</sup> each

- ▶ one (1) truck loading bays; pass through type
- ▶ one (1) truck loading scale - 100 ton capacity each
- ▶ four (4) truck loading slide gates - 3' L x 2' W
- ▶ one (1) scale room; automated
- ▶ four (4) thickeners; gravity type, circular - 60' diameter each
- ▶ three (3) digesters; fixed cover type (primary) - 60' diameter, 90,000 ft<sup>3</sup> each
- ▶ three (3) digesters; fixed cover type (secondary) - 60' diameter, 90,000 ft<sup>3</sup> each
- ▶ thirty-six (36) sludge heaters; (6 per digester) - 320,000 btu/hr heating capacity for mesophilic operation
- ▶ twelve (12) mixing pumps; (2 per digester) - 50 hp, 4,900 gpm each
- ▶ two (2) storage tanks - 70' diameter 125,000 ft<sup>3</sup> each

In addition to the primary equipment listed above the City operates various ancillary facilities and equipment at Red Hook that include; a docking facility which can accommodate each of the liquid sludge vessels used by the City to transport liquid sludge from the “guest” WWTPs (without dewatering facilities) to the “host” WWTPs (with dewatering facilities) and liquid sludge storage tanks.

***G. Tallman Island Dewatering Facility (Currently not in use)***

For this reporting period, the Tallman Island Dewatering Facility has been shut down due to treatment plant upgrade construction.

***H. Wards Island Dewatering Facility***

- ▶ thirteen (13) centrifuges; solid bowl type - rated @ 240 gpm
- ▶ ten (10) storage bins - working capacity 2,570 ft<sup>3</sup> each
- ▶ two (2) truck loading bays; pass through type
- ▶ two (2) truck loading scales (1 per bay) - 100 ton capacity each
- ▶ twenty (20) truck loading slide gates (10 per bay) - 3' L x 2' W
- ▶ one (1) scale room; automated
- ▶ twelve (12) thickeners; gravity type, circular - 70' diameter, 47,300 ft<sup>3</sup> each
- ▶ six (6) digesters; fixed cover type (primary) - 88' diameter, 253,000 ft<sup>3</sup> each
- ▶ two (2) digesters; fixed cover type (secondary) - 88' diameter, 253,000 ft<sup>3</sup> each
- ▶ fourteen (14) heat exchangers; water process type “E” - 2.5Mbtu/hr (2 per primary digester, 1 per secondary digester)

- ▶ two (2) storage tanks - 81' diameter, 259,600 ft<sup>3</sup> each

In addition to the primary equipment listed above, the City operates various ancillary facilities and equipment at Wards Island that include; a docking facility which can accommodate each of the liquid sludge vessels used by the City to transport liquid sludge from the “guest” WWTPs (without dewatering facilities) to the “host” WWTPs (with dewatering facilities) and liquid sludge storage tanks.

### III. LIQUID SLUDGE AND BIOSOLIDS PRODUCTION AND ALLOCATIONS

Table 3 of Appendix A contains the monthly liquid sludge production of each NYC Wastewater Treatment Plant in dry metric tons for this reporting period (January 1, 2013–December 31, 2013)

Table 4A presents the monthly liquid sludge allocation (at 14 wastewater treatment plants) in dry metric tons for the reporting period and Table 4B presents the monthly biosolids allocation (at 8 dewatering facilities which are located at 8 of the 14 wastewater treatment plants – 26<sup>th</sup> Ward, Bowery Bay, Hunts Points, Jamaica, Oakwood Beach, Red Hook, Tallman Island, and Wards Island) in dry metric tons for the reporting period. Total percent solids of the biosolids were measured daily at each dewatering facility from grab samples of the material.

For the figures on Table 3 and 4A, there may be a larger standard deviation of the liquid sludge production in dry metric tons (compare to the figures in Table 4B) due to the conversion process. The production rates of liquid sludge are very large figures; when multiplied by the total solid percentage to convert to the dry metric ton, the result may have a large difference. Therefore, the figures in Table 4B are more realistic and more accurate.

### IV. METALS INFORMATION

The concentration of each of the nine (9) metals listed in *Table 1 of 40 CFR Part 503.13(b)(1)* was measured in all liquid sludge generated at the 14 Wastewater Treatment plants and in the biosolids generated at eight dewatering facilities. The DEP maintains an extensive database that contains metals data from the analyses performed at the ELAP certified DEP metals laboratories and the outside contract laboratories utilized by the contractors. Tables 1 and 1A contain the analytical methods utilized by DEP respectively, for determining the concentrations of the metals in liquid sludge and biosolids. The following protocol is employed by DEP for samples of biosolids taken for metals analyses:

A grab sample of biosolids is taken from the conveyor belts that transport the material from the centrifuges to the biosolids storage hoppers, placed in a clean sampling container once per 8-hour shift and composited daily (3 grab samples per day). Although not regularly practiced, grab samples may also be taken from the sampling ports on the centrifuges, the biosolids storage hoppers and/or while the material is being discharged into a contractor's vehicle in the truck loading bays. Samples are labeled with the date, time and, where applicable, the train of centrifuges from which the sample was retrieved.

These samples are sent to DEP's Process Control Laboratories where a composite sample

is prepared and analyzed for total solids content. An aliquot of this daily composite is taken to prepare a monthly composite sample which is analyzed for metal content by DEP's Metal Laboratory. During the collection, the samples are kept at or below 39°F (4°C).

At the 26<sup>th</sup> Ward, Hunts Point, Wards Island, Bowery Bay and Oakwood Beach sludge dewatering facilities, liquid sludge from a "host" and one or more "guest" WWTPs is dewatered.

At a "host" facility, the biosolids may be of various origins warranting slightly different sampling conventions as described below:

- a. Liquid sludge from two or more WWTPs is mixed in the liquid sludge storage tank at the host WWTP. When this occurs, the liquid sludge mixture is dewatered and grab samples of that biosolids "mixture" are taken for the daily composite. Numerous combinations of liquid sludge from varying origins may pass through a liquid sludge storage tank in any one monitoring period. The metals analyses results of the sample for that monitoring period, contains the origin of each sludge comprising the sample and is reported with that information.
- b. Biosolids from two or more WWTPs are deposited into a common biosolid storage hopper from which grab samples are taken. When this occurs, the metals analyses results of the composite sample for that monitoring period contains the origin of each sludge comprising the sample and is reported with that information.
- c. Liquid sludge from each "host" and "guest" WWTP may be stored in separate liquid sludge storage tanks, dewatered by separate trains of centrifuges and stored in separate storage hoppers. When this occurs, separate grab samples of biosolids from each, the "host" and "guest" WWTP are taken, analyzed separately and reported as two distinct sludge. Whenever possible DEP has made its best effort to keep sludge of different origins separated.



**Table 1**  
**Analytical Methods for Metals Concentrations (Liquid Sludge)**  
**NYC DEP Laboratories**

<b>Metals</b>	<b>Sample Preparation and Analytical Methodologies *</b> <b>USEPA SW-846 &amp; US EPA 600/4-79-020</b>
Arsenic	EPA Methods 6020 / 6020A
Beryllium	EPA Methods 6020 / 6020 A
Cadmium	EPA Methods 6010B / 6010C
Chromium	EPA Methods 6010B / 6010 C
Copper	EPA Methods 6010B / 6010 C
Lead	EPA Methods 6010B / 6010 C
Mercury	EPA Methods 7470A / 7471B
Molybdenum	EPA Methods 6010B / 6010 C
Nickel	EPA Methods 6010B / 6010 C
Selenium	EPA Methods 6020 / 6020 A
Zinc	EPA Methods 6010B / 6010C

\*Laboratory changed methodologies in September 2013

**Table 1A**  
**Analytical Methods for Metals Concentrations (Biosolids)**  
**NYC DEP Laboratories**

<b>Metals</b>	<b>Sample Preparation and Analytical Methodologies *</b> <b>USEPA SW-846 &amp; US EPA 600/4-79-020</b>
Arsenic	EPA Methods 6020 / 6020A
Cadmium	EPA Methods 6010B / 6010 C
Chromium	EPA Methods 6010B / 6010C
Copper	EPA Methods 6010B / 6010 C
Lead	EPA Methods 6010B / 6010 C
Mercury	EPA Methods 7471A / 7471 B
Molybdenum	EPA Methods 6010B / 6010 C
Nickel	EPA Methods 6010B / 6010 C
Selenium	EPA Methods 6020 / 6020 A
Zinc	EPA Methods 6010B / 6010 C

\*Laboratory changed methodologies in September 2013

## V. PATHOGEN INFORMATION & VECTOR ATTRACTION REDUCTION

The biosolids generated at the treatment plants were not certified for pathogen reduction or vector attraction reduction in 2013. All biosolids were removed by contractor for further processing and/or disposal.

## VI. SLUDGE MANAGEMENT CONTRACTORS

**Table 2: Sludge Management Contractor Information**

<b>Contractor</b>	<b>Address</b>	<b>Contact</b>	<b>End Use</b>	<b>Site Locations</b>
<b>Coastal Distribution - Landfill</b> <b>Contract: 1250-BIO*</b>	1633 New Highway Farmingdale, NY11735	Pat Piccinnonno Project Manager (631) 756-2000	Landfill	Sussex County, Virginia Pennsylvania
<b>Tully Environmental</b> <b>Contract: 947ADM3**</b>	127-50 Northern Blvd. Flushing, NY11368	Dean Devoe Project Manager (718)446-7000 Ext. 298	Lime Treatment Land Application Mine Reclamation Mine Reclamation	Cherry Sullivan County, PA West Keating, PA English Center, PA
<b>EPIC – Landfill</b> <b>Contract: 1247-BIO</b>	100 Stierli Court, Suite 103 Mt. Arlington, NJ07856	Mr. Neil Rogers Project Manager (973) 690-2947	Landfill	New Lexington, OH Mauk, GA Coalton, KY Morrisville, PA
<b>Interstate Waste Services</b> <b>Contract: 1280-BIO</b>	500 N Franklin Turnpike, Suite 212, Ramsey, NJ07446	Albert Kajtazi Territory Manager 201-830-3416	Landfill	Amsterdam, OH Morrisville, PA Western Berks, PA
<b>We Care Organics</b> <b>Contract: 1236-BIO</b>	9293 Bonta Bridge Rd. Jordan, NY13080	Jason Fleury Project Manager 315-952-1538	Mine Reclamation	Tremont, PA Centre County, PA Clearfield County, PA
<b>We Care Organics</b> <b>Contract: 1308-BIO</b>	9293 Bonta Bridge Rd. Jordan, NY13080	Owen Sheehan Project Manager (609) 499-7805	Landfill Beneficial Use	Tullytown, PA Morrisville, PA Pen Argyl, PA

\*Coastal Distribution under contract 1250-BIO was sold, November 2012, to Tunnel Hill Partners. Contract 1250-BIO expired May 13, 2013.

\*\*Contract 947ADM3 expired June 30, 2013.

## VII. NOTES

All numbers have been calculated to the best of our ability. Tables may not add up due to variations in calculations such as basing data on liquid sludge production as opposed to calculated weights from biosolids hauling contractors.

## **WWTP REPORTS**

## **26TH WARD**

**City of New York  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
Bureau of Wastewater Treatment**

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**26TH WARD  
WASTEWATER TREATMENT PLANT**

US EPA 40 CFR Part 503  
Use or Disposal of Sewage Sludge  
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**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**

Prepared by

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February 2014

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### **I. 26<sup>TH</sup> WARD LIQUID SLUDGE QUANTITIES**

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Requisite information, specific to the 26<sup>th</sup> Ward WWTP is provided below.

FACILITY NAME	LOCATION	DEWATERING FACILITY	SPDES PERMIT #	CONTACT PERSON	PROCESS ENGINEER
26 <sup>th</sup> Ward Wastewater Treatment Plant	122-66 Flatlands Avenue Brooklyn, NY 11207	Yes	NY0026212	Superintendent Zainool Ali (718) 642-7705	William Sedutto

#### **Additional Permits**

Facility Name	Location	Permit Name	Permit #	Type Of Permit (Federal, State)
26 <sup>th</sup> Ward Wastewater Treatment Plant	122-66 Flatlands Avenue Brooklyn, NY 11207	Air State Facility Permit	261050000902003	State

### **I. 26<sup>TH</sup> WARD LIQUID SLUDGE QUANTITIES**

#### **A. LIQUID SLUDGE PRODUCTION AND OUTGOING LIQUID SLUDGE ALLOCATIONS**

For the reporting period of January 1 through December 31, 2013 all anaerobically digested, thickened sewage sludge generated at 26<sup>th</sup> Ward was dewatered at the 26<sup>th</sup> Ward sludge dewatering facility. Approximately **10,724** dry metric tons of 26<sup>th</sup> Ward sludge were generated. Table 3 and Table 4A of Appendix A contain the monthly liquid sludge production and allocations figures in dry metric tons for this reporting period.



## II. 26<sup>TH</sup> WARD LIQUID SLUDGE AND BIOSOLIDS QUALITY

### A. METALS ANALYSES

Table 5A and Table 5B of Appendix B summarize the average monthly metals concentrations for the liquid sludge and biosolids generated at the 26<sup>th</sup> Ward WWTP. The monthly metals concentrations represent an arithmetic average of the results from the analyses of all samples of 26<sup>th</sup> Ward biosolids generated each month.

During this reporting period, 26<sup>th</sup> Ward biosolids contained concentrations of metals that always met the **Ceiling Concentration Limits** for twelve (12) months as listed in *Table 1 of 40 CFR Part 503.13(b)(1)*. Further, during twelve (12) months in 2013, 26<sup>th</sup> Ward biosolids contained concentrations of metals that met the **Pollutant Concentration Limits** as listed in *Table 3 of 40 CFR Part 503.13(b)(1)*.

### III. 26<sup>TH</sup> WARD BIOSOLIDS ALLOCATIONS

**BIOSOLIDS FROM THE 26<sup>TH</sup> WARD WASTEWATER TREATMENT PLANT DISTRIBUTED TO SLUDGE MANAGEMENT CONTRACTORS AT THE 26<sup>TH</sup> WARD DEWATERING FACILITY. (SUMMARY IS SHOWN IN TABLE 4B IN APPENDIX B).**

#### A. Tully Environmental under Contract 947ADM3

During this reporting period **no** dry metric tons of the biosolids mix were distributed to **Tully Environmental** (see introduction for processing details) from the 26<sup>th</sup> Ward dewatering facility during this reporting period.

#### B. EPIC under Contract 1247-BIO

Approximately **1,776.76** dry metric tons of the biosolids mix were distributed to **EPIC** (see introduction for processing details) from the 26<sup>th</sup> Ward dewatering facility during this reporting period.

#### C. Coastal Distribution under Contract 1250-BIO

During this reporting period **no** dry metric tons of the biosolids mix were distributed to **Coastal Distribution** (see introduction for processing details) from the 26<sup>th</sup> Ward dewatering facility.

#### D. Interstate Waste Services under Contract 1280-BIO

Approximately **23.58** dry metric tons of the biosolids mix were distributed to **Interstate Waste Services** (see introduction for processing details) from the 26<sup>th</sup> Ward dewatering facility during this reporting period

#### E. We Care Organics under Contract 1236-BIO

Approximately **18,878.16** dry metric tons of the biosolids mix were distributed to **We Care Organics** (see introduction for processing details) from the 26<sup>th</sup> Ward dewatering facility during this reporting period.

**F. We Care Organics under Contract 1308-BIO**

During this reporting period **no** dry metric tons of the biosolids mix were distributed to **We Care Organics** (see introduction for processing details) from the 26<sup>th</sup> Ward dewatering facility during this reporting period.

Table 2 in the Introduction Section contains requisite information specific to each of the eight sludge management contractors.

## **APPENDICES**

## **APPENDIX - A**

Table 3.....	Monthly Liquid Sludge Allocation
Table 4A.....	Monthly Liquid Sludge Allocations to Contractors
Table 4B.....	Monthly Biosolids Allocations to Contractors

**Table 3**  
**Monthly Liquid Sludge Production**  
**26th Ward WWTP**

<b>Month</b>	<b>Liquid Sludge Production (DMT)*</b>
January-13	1,457
February-13	1,265
March-13	1,286
April-13	1,642
May-13	1,080
June-13	574
July-13	712
August-13	570
September-13	521
October-13	646
November-13	446
December-13	525
<b>TOTALS</b>	<b>10,724</b>

**Notes:**

\* Dewatered sludge production is expressed in dry metric tons (DMT).

**Table 4A**  
**Monthly Liquid Sludge Allocations**  
**26th Ward WWTP**

<b>Month</b>	<b>26th Ward (DMT)*</b>	<b>Bowery Bay (DMT)*</b>	<b>Hunts Point (DMT)*</b>	<b>Jamaica (DMT)*</b>	<b>Oakwood Beach (DMT)*</b>	<b>Red Hook (DMT)*</b>	<b>North River (DMT)*</b>	<b>Wards Island (DMT)*</b>	<b>PVSC (DMT)*</b>	<b>TOTALS (DMT)*</b>
Jan-13										0.00
Feb-13										0.00
Mar-13										0.00
Apr-13										0.00
May-13										0.00
Jun-13										0.00
Jul-13										0.00
Aug-13										0.00
Sep-13										0.00
Oct-13										0.00
Nov-13										0.00
Dec-13										0.00
<b>TOTALS</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>

Notes:

**Table 4B**  
**Monthly Biosolids Allocations to Contractors**  
**26W Dewatering Facility**

<b>Month</b>							<b>TOTALS</b>  (DMT)*
	Tully Environmental Contract 947 ADM3 (DMT)*	EPIC (Landfill) Contract 1247-BIO (DMT)*	Coastal Distributions Contract 1250-BIO (DMT)*	Interstate Waste Services Contract 1280-BIO (DMT)*	We Care Organics Contract 1236-BIO (DMT)*	We Care Organics Contract 1308-BIO (DMT)*	
Jan-13		162.07			1735.91		1,897.97
Feb-13		213.47			1542.85		1,756.33
Mar-13		133.91			1678.94		1,812.85
Apr-13		177.52			1851.94		2,029.46
May-13					1992.40		1,992.40
Jun-13		160.22		13.51	1589.09		1,762.82
Jul-13		326.29			1523.35		1,849.64
Aug-13		220.18			1510.24		1,730.41
Sep-13		174.75		4.95	1304.27		1,483.97
Oct-13		151.57			1438.83		1,590.40
Nov-13		20.26		5.12	1273.45		1,298.83
Dec-13		36.51			1436.90		1,473.41
<b>TOTALS</b>	<b>0.00</b>	<b>1,776.76</b>	<b>0.00</b>	<b>23.58</b>	<b>18,878.16</b>		<b>20,678.51</b>

**Notes:**

\*Biosolids allocation is expressed in dry metric tons (DMT).



## **APPENDIX - B**

Table 5A.....Monthly Average Metals Data for Liquid  
Sludge

Table 5B.....Monthly Average Metals Data for  
Biosolids

**Table 5A**  
**Monthly Metals Concentrations for Liquid Sludge**  
**26th Ward WWTP**

Month	METALS										
	Arsenic mg/L	Beryllium mg/L	Cadmium mg/L	Chromium mg/L	Copper mg/L	Lead mg/L	Mercury mg/L	Molybdenum mg/L	Nickel mg/L	Selenium mg/L	Zinc mg/L
January-13	0.0630	0.0032	0.0909	0.5830	9.53	2.38	0.0294	0.1060	0.2830	0.0750	17.1
February-13	0.0747	0.0032	0.0896	0.5500	9.81	2.40	0.0235	0.1020	0.2690	0.0841	16.4
March-13	0.0758	0.0033	0.1050	0.6400	10.20	2.79	0.0351	0.0984	0.2980	0.0884	17.4
April-13	0.0732	0.0028	0.0695	0.5140	8.55	1.98	0.0239	0.0905	0.2350	0.0785	14.3
May-13	0.0750	0.0042	0.0747	0.6220	8.88	2.50	0.0275	0.1070	0.2790	0.0816	16.8
June-13	0.0664	0.0041	0.0847	0.6440	8.84	2.80	0.0214	0.0730	0.3050	0.0665	17.7
July-13	0.0596	0.0036	0.0940	0.7170	9.12	2.92	0.0237	0.1120	0.3490	0.0732	19.8
August-13	0.0608	0.0044	0.0424	0.6350	11.20	2.89	0.0260	0.1250	0.3330	0.0956	19.4
September-13	0.0416	0.0021	0.0557	0.4820	8.60	2.18	0.0171	0.0990	0.2570	0.0712	15.4
October-13	0.0446	0.0024	0.0471	0.4650	9.33	1.88	0.0161	0.1140	0.2410	0.0748	14.0
November-13	0.0398	0.0025	0.0863	0.4870	10.10	2.08	0.0202	0.1080	0.2600	0.0607	15.5
December-13	0.0511	0.0024	0.0698	0.6160	10.80	2.35	0.0211	0.1320	0.3310	0.0736	16.4

**Table 5B**  
**Monthly Metals Concentrations for Biosolids**  
**26th Ward Dewatering Facility**

Month	METALS									
	Arsenic mg/Kg	Cadmium mg/Kg	Chromium mg/Kg	Copper mg/Kg	Lead mg/Kg	Mercury mg/Kg	Molybdenum mg/Kg	Nickel mg/Kg	Selenium mg/Kg	Zinc mg/Kg
January-13	3.13	4.39	25.6	484.0	134.0	2.0	5.4	14.8	4.1	854.0
February-13	3.70	4.19	25.8	499.0	144.0	1.9	4.8	14.9	3.4	859.0
March-13	3.68	4.11	28.8	493.0	154.0	3.0	4.2	17.1	3.0	853.0
April-13	3.16	3.39	23.8	441.0	110.0	1.5	3.6	11.8	2.8	738.0
May-13	3.22	3.93	26.0	434.0	128.0	1.3	4.6	14.4	4.0	828.0
June-13	3.99	4.13	26.4	493.0	178.0	2.4	4.2	18.9	3.5	976.0
July-13	2.89	4.56	32.8	513.0	166.0	1.8	6.1	18.3	4.0	1020.0
August-13	2.95	1.92	21.6	539.0	130.0	1.4	5.1	17.9	3.8	1063.0
September-13	2.41	3.03	25.1	558.0	134.0	1.4	6.0	15.0	4.4	988.0
October-13	2.44	2.95	21.5	571.0	116.0	1.4	5.9	15.0	4.2	907.0
November-13	2.24	2.98	20.5	530.0	122.0	1.3	5.9	16.1	3.7	891.0
December-13	5.97	11.20	34.9	624.0	151.0	1.6	9.8	20.0	3.3	944.0

## **BOWERY BAY**

**City of New York  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
Bureau of Wastewater Treatment**

**BOWERY BAY  
WASTEWATER TREATMENT PLANT**

US EPA 40 CFR Part 503  
Use or Disposal of Sewage Sludge  
2013 Annual Report

Prepared for

**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**

Prepared by

City of New York, Department of Environmental Protection  
Bureau of Wastewater Treatment  
SPDES Compliance Section  
96-05 Horace Harding Expressway  
Corona, New York 11368  
(718) 595-5056



February 2014

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- Appendix B - Table 5A, Monthly Average Metals Data for Liquid Sludge  
Table 5B, Monthly Average Metals Data for Biosolids

Requisite information, specific to the Bowery Bay WWTP is provided below.

FACILITY NAME	LOCATION	DEWATERING FACILITY	SPDES PERMIT #	CONTACT PERSON	PROCESS ENGINEER
Bowery Bay Wastewater Treatment Plant	43-01 Berrian Boulevard, Astoria, NY 11105	Yes	NY0026158	Superintendent Frances Vocasek (718) 728-3975	JuJu Xia

#### **Additional Permits**

Facility Name	Location	Permit Name	Permit #	Type of Permit (Federal, State)
Bowery Bay Wastewater Treatment Plant	43-01 Berrian Boulevard, Astoria, NY 11105	Air State Facility Permit	263010000802003	State

### **I. BOWERY BAY LIQUID SLUDGE QUANTITIES**

#### **A. LIQUID SLUDGE PRODUCTION AND OUTGOING LIQUID SLUDGE ALLOCATIONS**

For the reporting period of January 1 through December 31, 2013 all anaerobically digested, thickened sewage sludge generated at Bowery Bay was dewatered at the Bowery Bay dewatering facility. Approximately **15,247** dry metric tons of Bowery Bay sludge were generated. Table 3 and Table 4A of Appendix A contains the monthly liquid sludge production and allocation figures in dry metric tons for this reporting period.



## II. BOWERY BAY LIQUID SLUDGE AND BIOSOLIDS QUALITY

### A. METALS ANALYSES

Table 5A and Table 5B of Appendix B summarize the average monthly metals concentrations for the liquid sludge and biosolids generated at the Bowery Bay WWTP. The monthly metals concentrations represent an arithmetic average of the results from the analyses of all samples of Bowery Bay biosolids generated each month.

During this reporting period, Bowery Bay biosolids contained concentrations of metals that always met the **Ceiling Concentration Limits** for twelve (12) months as listed in *Table 1 of 40 CFR Part 503.13(b)(1)*. Further, during twelve (12) months in 2013, Bowery Bay biosolids contained concentrations of metals that met the **Pollutant Concentration Limits** as listed in *Table 3 of 40 CFR Part 503.13(b)(1)*.

### III. **BOWERY BAY BIOSOLIDS ALLOCATIONS**

**BIOSOLIDS FROM THE BOWERY BAY WASTEWATER TREATMENT PLANT DISTRIBUTED TO SLUDGE MANAGEMENT CONTRACTORS AT THE BOWERY BAY DEWATERING FACILITY. (SUMMARY IS SHOWN IN TABLE 4B IN APPENDIX B).**

#### A. **Tully Environmental under Contract 947ADM3**

Approximately **136.7** dry metric tons of the biosolids were distributed to **Tully Environmental** (see introduction for processing details) from the Bowery Bay dewatering facility during this reporting period.

#### B. **EPIC under Contract 1247 BIO**

Approximately **10,722.65.91** dry metric tons of the biosolids were distributed to **EPIC** (see introduction for processing details) from the Bowery Bay dewatering facility during this reporting period.

#### C. **Coastal Distribution under Contract 1250 BIO**

Approximately **1,774.92** dry metric tons of the biosolids were distributed to **Coastal Distribution** (see introduction for processing details) from the Bowery Bay dewatering facility during this reporting period.

#### D. **Interstate Waste Services under Contract 1280-BIO**

During this reporting period **no** dry metric tons of the biosolids were distributed to **Interstate Waste Services** (see introduction for processing details) from the Bowery Bay dewatering facility during this reporting period.

#### E. **We Care Organics under Contract 1236-BIO**

During this reporting period **no** dry metric tons of the biosolids were distributed to **We Care Organics** (see introduction for processing details) from the Bowery Bay dewatering facility during this reporting period.

F. **We Care Organics under Contract 1308-BIO**

During this reporting period **no** dry metric tons of the biosolids were distributed to **We Care Organics** (see introduction for processing details) from the Bowery Bay dewatering facility during this reporting period.

Table 2 in the introduction Section contains requisite information specific to each of the eight sludge management contractors.

## **APPENDICES**

## **APPENDIX - A**

Table 3.....	Monthly Liquid Sludge Allocation
Table 4A.....	Monthly Liquid Sludge Allocations to Contractors
Table 4B.....	Monthly Biosolids Allocations to Contractors

**Table 3**  
**Monthly Liquid Sludge Production**  
**Bowery Bay WWTP**

<b>Month</b>	<b>Liquid Sludge Production (DMT)*</b>
January-13	1,027
February-13	1,064
March-13	1,168
April-13	1,229
May-13	1,097
June-13	1,265
July-13	1,392
August-13	1,210
September-13	1,315
October-13	1,506
November-13	1,610
December-13	1,363
<b>TOTALS</b>	<b>15,247</b>

**Notes:**

\* Dewatered sludge production is expressed in dry metric tons (DMT).

**Table 4A**  
**Monthly Liquid Sludge Allocations**  
**Bowery Bay WWTP**

<b>Month</b>	<b>26th Ward (DMT)*</b>	<b>Bowery Bay (DMT)*</b>	<b>Hunts Point (DMT)*</b>	<b>Jamaica (DMT)*</b>	<b>Oakwood Beach (DMT)*</b>	<b>Red Hook (DMT)*</b>	<b>North River (DMT)*</b>	<b>Wards Island (DMT)*</b>	<b>PVSC (DMT)*</b>	<b>TOTALS (DMT)*</b>
Jan-13										0.00
Feb-13										0.00
Mar-13										0.00
Apr-13										0.00
May-13										0.00
Jun-13										0.00
Jul-13										0.00
Aug-13										0.00
Sep-13										0.00
Oct-13										0.00
Nov-13										0.00
Dec-13										0.00
<b>TOTALS</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>

**Notes:**

\*Liquid sludge transportation is expressed in dry metric tons (DMT).

**Table 4B**  
**Monthly Biosolids Allocations to Contractors**  
**Bowery Bay Dewatering Facility**

<b>Month</b>							<b>TOTALS</b>  (DMT)*
	Tully Environmental Contract 947 ADM3 (DMT)*	EPIC (Landfill) Contract 1247-BIO (DMT)*	Coastal Distributions Contract 1250-BIO (DMT)*	Interstate Waste Services Contract 1280-BIO (DMT)*	We Care Organics Contract 1236-BIO (DMT)*	We Care Organics Contract 1308-BIO (DMT)*	
Jan-13		777.51					777.51
Feb-13	136.97	741.21					878.18
Mar-13			802.34				802.34
Apr-13			958.31				958.31
May-13		1134.02	14.28				1,148.29
Jun-13		1360.69					1,360.69
Jul-13		1357.11					1,357.11
Aug-13		1229.58					1,229.58
Sep-13		1059.02					1,059.02
Oct-13		933.08					933.08
Nov-13		1041.49					1,041.49
Dec-13		1088.93					1,088.93
<b>TOTALS</b>	<b>136.97</b>	<b>10,722.65</b>	<b>1,774.92</b>	<b>0.00</b>	<b>0.00</b>		<b>12,634.54</b>

**Notes:**

\*Biosolids allocation is expressed in dry metric tons (DMT).



## **APPENDIX - B**

Table 5A.....Monthly Average Metals Data for Liquid  
Sludge

Table 5B.....Monthly Average Metals Data for  
Biosolids

**Table 5A**  
**Monthly Metals Concentrations for Liquid Sludge**  
**Bowery Bay WWTP**

Month	METALS										
	Arsenic mg/L	Beryllium mg/L	Cadmium mg/L	Chromium mg/L	Copper mg/L	Lead mg/L	Mercury mg/L	Molybdenum mg/L	Nickel mg/L	Selenium mg/L	Zinc mg/L
January-13	0.0635	0.0033	0.0644	0.8210	11.20	2.24	0.0238	0.1290	0.5100	0.0871	17.2
February-13	0.0947	0.0038	0.0778	0.9220	12.00	2.55	0.0254	0.1440	0.5860	0.1180	19.7
March-13	0.0830	0.0032	0.0716	0.7880	14.20	2.42	0.0244	0.1140	0.5040	0.0907	17.6
April-13	0.0784	0.0032	0.0563	1.2400	11.50	1.99	0.0360	0.1070	0.4080	0.0903	15.4
May-13	0.0643	0.0032	0.0537	1.5000	9.15	2.27	0.0214	0.0992	0.4350	0.0708	15.6
June-13	0.0622	0.0035	0.0576	0.8880	9.97	2.35	0.0211	0.0984	0.4480	0.0725	16.4
July-13	0.0535	0.0029	0.0551	0.6760	9.37	2.18	0.0185	0.1420	0.5340	0.0758	15.9
August-13	0.0477	0.0026	0.0284	0.6650	9.30	1.97	0.0171	0.1230	0.4330	0.0754	14.3
September-13	0.0446	0.0017	0.0390	0.6820	9.01	1.92	0.0155	0.1230	0.4100	0.0716	13.5
October-13	0.0436	0.0018	0.0369	1.3400	8.97	1.58	0.0200	0.1140	0.3170	0.0796	12.4
November-13	0.0479	0.0019	0.0473	1.1700	11.10	2.09	0.0245	0.1520	0.3890	0.0956	15.9
December-13	0.0527	0.0017	0.0543	0.9100	12.30	2.25	0.0245	0.1540	0.4400	0.0917	15.8

**Table 5B**  
**Monthly Metals Concentrations for Biosolids**  
**Bowery Bay Dewatering Facility**

Month	METALS									
	Arsenic mg/Kg	Cadmium mg/Kg	Chromium mg/Kg	Copper mg/Kg	Lead mg/Kg	Mercury mg/Kg	Molybdenum mg/Kg	Nickel mg/Kg	Selenium mg/Kg	Zinc mg/Kg
January-13	3.65	5.65	53.5	636.0	134.0	1.8	8.0	27.2	4.7	1081.0
February-13	4.90	5.19	50.1	604.0	136.0	1.2	8.0	29.2	5.6	1022.0
March-13	4.23	4.72	49.3	570.0	138.0	1.6	6.0	28.3	5.2	968.0
April-13	3.86	3.61	73.2	522.0	116.0	1.1	5.7	23.3	4.1	883.0
May-13	3.60	4.20	102.0	542.0	132.0	1.4	8.6	26.5	5.9	965.0
June-13	3.26	4.13	46.20	532.00	159.0	1.6	7.9	26.0	4.4	987.0
July-13	3.16	4.09	49.10	579.00	154.0	1.6	10.5	27.7	5.8	1034.0
August-13	2.57	1.91	44.10	604.00	127.0	1.2	9.6	29.9	3.4	1080.0
September-13	2.59	2.72	57.10	567.00	121.0	1.1	8.3	20.6	4.5	907.0
October-13	2.10	2.92	94.80	587.00	110.0	1.2	7.2	20.0	4.7	855.0
November-13	2.38	3.43	55.20	607.00	131.0	1.3	10.3	22.1	5.1	903.0
December-13	2.59	3.66	48.00	570.00	129.0	1.2	8.5	31.7	3.3	876.0

## **CONEY ISLAND**

**City of New York  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
Bureau of Wastewater Treatment**

**CONEY ISLAND  
WASTEWATER TREATMENT PLANT**

US EPA 40 CFR Part 503  
Use or Disposal of Sewage Sludge  
2013 Annual Report

Prepared for

**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**

Prepared by

City of New York, Department of Environmental Protection  
Bureau of Wastewater Treatment  
SPDES Compliance Section  
96-05 Horace Harding Expressway  
Corona, New York 11368  
(718) 595-5056



February 2014

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Requisite information, specific to the Coney Island WWTP is provided below.

FACILITY NAME	LOCATION	DEWATERING FACILITY	SPDES PERMIT #	CONTACT PERSON	PROCESS ENGINEER
Coney Island Wastewater Treatment Plant	2591 Knapp Street Brooklyn, NY 11235	No	NY0026182	Superintendent Ojpal Auluck (718) 743-0540	Yu-Tung Chan

### **Additional Permits**

Facility Name	Location	Permit Name	Permit #	Type of Permit (Federal, State)
Coney Island Wastewater Treatment Plant	2591 Knapp Street Brooklyn, NY 11235	Title V	261070000400017	Federal

## **I. CONEY ISLAND DEWATERED SLUDGE QUANTITIES**

### **A. DEWATERING FACILITY ALLOCATIONS**

The Coney Island WWTP is not furnished with a sludge dewatering facility. Liquid sludge from Coney Island is pumped approximately 7-miles through a 12-inch force main to the 26th Ward WWTP where the liquid sludge is dewatered.

For the reporting period of January 1 through December 31, 2013 approximately **10,127** dry metric tons of Coney Island liquid sludge were generated. The sludge was dewatered at the 26<sup>th</sup> Ward dewatering facility. Table 3 and Table 4A of Appendix A contains the monthly liquid sludge production and allocation figures in dry metric tons for this reporting period.



## **II. CONEY ISLAND LIQUID SLUDGE QUALITY**

### **A. METALS ANALYSES**

Table 5A of Appendix B summarizes the average monthly metals concentrations for the liquid sludge generated at the Coney Island WWTP. The monthly metals concentrations represent an arithmetic average of the results from the analyses of all samples of Coney Island sludge generated each month.

## **III. CONEY ISLAND BIOSOLIDS ALLOCATIONS --NA**

## **APPENDICES**

## **APPENDIX - A**

Table 3.....	Monthly Liquid Sludge Allocation
Table 4A.....	Monthly Liquid Sludge Allocations to Contractors
Table 4B.....	Monthly Biosolids Allocations to Contractors (N/A)

**Table 3**  
**Monthly Liquid Sludge Production**  
**Coney Island WWTP**

<b>Month</b>	<b>Liquid Sludge Production (DMT)*</b>
January-13	934
February-13	843
March-13	1,074
April-13	895
May-13	766
June-13	1,083
July-13	1,022
August-13	749
September-13	789
October-13	982
November-13	375
December-13	616
<b>TOTALS</b>	10,127

**Notes:**

\* Dewatered sludge production is expressed in dry metric tons (DMT).

**Table 4A**  
**Monthly Liquid Sludge Allocations**  
**Coney Island WWTP**

<b>Month</b>	<b>26th Ward (DMT)*</b>	<b>Bowery Bay (DMT)*</b>	<b>Hunts Point (DMT)*</b>	<b>Jamaica (DMT)*</b>	<b>Oakwood Beach (DMT)*</b>	<b>Red Hook (DMT)*</b>	<b>North River (DMT)*</b>	<b>Wards Island (DMT)*</b>	<b>PVSC (DMT)*</b>	<b>TOTALS (DMT)*</b>
Jan-13	911.00									911
Feb-13	837.00									837
Mar-13	853.00									853
Apr-13	853.00									853
May-13	776.00									776
Jun-13	1071.00									1,071
Jul-13	1025.00									1,025
Aug-13	762.00									762
Sep-13	794.00									794
Oct-13	972.00									972
Nov-13	394.00									394
Dec-13	570.00									570
<b>TOTALS</b>	<b>9,818.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>9,818.00</b>

**Notes:**

\*Liquid sludge transportation is expressed in dry metric tons (DMT).

## **APPENDIX - B**

Table 5A.....Monthly Average Metals Data for Liquid  
Sludge

Table 5B.....Monthly Average Metals Data for  
Biosolids (N/A)

**Table 5A**  
**Monthly Metals Concentrations for Liquid Sludge**  
**Coney Island WWTP**

Month	METALS										
	Arsenic mg/L	Beryllium mg/L	Cadmium mg/L	Chromium mg/L	Copper mg/L	Lead mg/L	Mercury mg/L	Molybdenum mg/L	Nickel mg/L	Selenium mg/L	Zinc mg/L
January-13	0.0814	0.0028	0.0883	0.4810	10.10	3.73	0.0635	0.0985	0.3730	0.0462	19.4
February-13	0.0892	0.0030	0.0732	0.5090	10.40	3.49	0.0582	0.0964	0.3390	0.0538	18.4
March-13	0.0815	0.0030	0.0911	0.6670	9.67	4.29	0.0895	0.0862	0.4400	0.0607	19.0
April-13	0.1040	0.0035	0.0742	0.5830	11.20	4.23	0.0741	0.0927	0.4170	0.0678	19.8
May-13	0.0776	0.0031	0.0521	0.4400	7.73	3.34	0.0656	0.0859	0.3340	0.0572	15.5
June-13	0.0712	0.0029	0.0536	0.3800	7.43	2.97	0.0287	0.0625	0.3820	0.0589	14.5
July-13	0.0479	0.0020	0.0414	0.3300	6.43	2.43	*0.0258	0.0547	0.2690	0.0352	13.0
August-13	0.0376	0.0017	0.0177	0.2040	5.49	1.76	0.0163	0.0493	0.2010	0.0294	10.0
September-13	0.0360	0.0012	0.0239	0.1990	5.86	1.54	0.0169	0.0569	0.2300	0.0302	10.4
October-13	0.0416	0.0012	0.0236	0.1880	5.70	1.52	0.0157	0.0645	0.2100	0.0374	9.7
November-13	0.0341	0.0012	0.0209	0.2540	5.60	1.46	0.0496	0.0692	0.1930	0.0476	10.6
December-13	0.0399	0.0013	0.0254	0.2440	6.18	1.87	0.0280	0.0664	0.2200	0.0463	10.9

## **HUNTS POINT**



**City of New York  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
Bureau of Wastewater Treatment**

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**HUNTS POINT  
WASTEWATER TREATMENT PLANT**

US EPA 40 CFR Part 503  
Use or Disposal of Sewage Sludge  
2013 Annual Report

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**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**

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City of New York, Department of Environmental Protection  
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96-05 Horace Harding Expressway  
Corona, New York 11368  
(718) 595-5056



February 2014

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Table 4A, Monthly Liquid Sludge Allocations  
Table 4B, Monthly Biosolids Allocations
- Appendix B - Table 5A, Monthly Average Metals Data for Liquid Sludge  
Table 5B, Monthly Average Metals Data for Biosolids

Requisite information, specific to the Hunts Point WWTP is provided below.

FACILITY NAME	LOCATION	DEWATERING FACILITY	SPDES PERMIT #	CONTACT PERSON	PROCESS ENGINEER
Hunts Point Wastewater Treatment Plant	1270 Ryawa Avenue Bronx, NY 10474	Yes	NY0026191	Superintendent William Schroder Jr. (718) 589-1120	Milagros Soriano

#### **Additional Permits**

Facility Name	Location	Permit Name	Permit #	Type of Permit (Federal, State)
Hunts Point Wastewater Treatment Plant	1270 Ryawa Avenue Bronx, NY 10474	Air State Facility Permit	260070002502005	State

### **I. HUNTS POINT LIQUID SLUDGE QUANTITIES**

#### **A. LIQUID SLUDGE PRODUCTION AND OUTGOING LIQUID SLUDGE ALLOCATIONS**

For the reporting period of January 1 through December 31, 2013 all anaerobically digested, thickened sewage sludge generated at Hunts Point was dewatered at the Hunts Point dewatering facility. Approximately **13,767** dry metric tons of Hunts Point sludge was generated. Table 3 and Table 4A of Appendix A contain the monthly liquid sludge production and allocations figures in dry metric tons for this reporting period.

## II. HUNTS POINT LIQUID SLUDGE AND BIOSOLIDS QUALITY

### A. METALS ANALYSES

Table 5A and Table 5B of Appendix B summarize the average monthly metals concentrations for the liquid sludge and biosolids generated at the Hunts Point WWTP. The monthly metals concentrations represent an arithmetic average of the results from the analyses of all samples of Hunts Point biosolids generated each month.

During this reporting period, Hunts Point biosolids contained concentrations of metals that always met the **Ceiling Concentration Limits** for twelve (12) months as listed in *Table 1 of 40 CFR Part 503.13(b)(1)*. Further, during twelve (12) months in 2013, Hunts Point biosolids contained concentrations of metals that met the **Pollutant Concentration Limits** as listed in *Table 3 of 40 CFR Part 503.13(b)(1)*.

### III. HUNTS POINT BIOSOLIDS ALLOCATIONS

**BIOSOLIDS FROM THE HUNTS POINT WASTEWATER TREATMENT PLANT DISTRIBUTED TO SLUDGE MANAGEMENT CONTRACTORS AT THE HUNTS POINT DEWATERING FACILITY. (SUMMARY IS SHOWN IN TABLE 4B IN APPENDIX B).**

#### A. Tully Environmental under Contract 947ADM3

Approximately **18.58** dry metric tons of the biosolids mix were distributed to **Tully Environmental** (see introduction for processing details) from the Hunts Point dewatering facility during this reporting period.

#### B. EPIC under Contract 1247-BIO

Approximately **1,200.91** dry metric tons of the biosolids mix were distributed to **EPIC** (see introduction for processing details) from the Hunts Point dewatering facility during this reporting period.

#### C. Coastal Distribution under Contract 1250-BIO

Approximately **115.95** dry metric tons of the biosolids mix were distributed to **Coastal Distribution** (see introduction for processing details) from the Hunts Point dewatering facility during this reporting period.

#### D. Interstate Waste Services under Contract 1280-BIO

Approximately **26,650.27** dry metric tons of the biosolids mix were distributed to **Interstate Waste Services** (see introduction for processing details) from the Hunts Point dewatering facility during this reporting period.

#### E. We Care Organics under Contract 1236-BIO

Approximately **71.32** dry metric tons of the biosolids mix were distributed to **We Care Organics** (see introduction for processing details) from the Hunts Point dewatering facility during this reporting period.

**F. We Care Organics under Contract 1308-BIO**

During this reporting period **no** biosolids mix was distributed to **We Care Organics** (see introduction for processing details) from the Hunts Point dewatering facility.

Table 2 in the introduction contains requisite information specific to each of the six sludge management contractors.

## **APPENDICES**



## **APPENDIX - A**

Table 3.....	Monthly Liquid Sludge Allocation
Table 4A.....	Monthly Liquid Sludge Allocations to Contractors
Table 4B.....	Monthly Biosolids Allocations to Contractors

**Table 3**  
**Monthly Liquid Sludge Production**  
**Hunts Point WWTP**

<b>Month</b>	<b>Liquid Sludge Production (DMT)*</b>
January-13	1,355
February-13	1,417
March-13	1,042
April-13	1,142
May-13	1,277
June-13	1,189
July-13	1,116
August-13	1,087
September-13	1,340
October-13	1,155
November-13	965
December-13	682
<b>TOTALS</b>	<b>13,767</b>

**Notes:**

\* Dewatered sludge production is expressed in dry metric tons (DMT).

**Table 4A**  
**Monthly Liquid Sludge Allocations**  
**Hunts Point WWTP**

<b>Month</b>	<b>26th Ward (DMT)*</b>	<b>Bowery Bay (DMT)*</b>	<b>Hunts Point (DMT)*</b>	<b>Jamaica (DMT)*</b>	<b>Oakwood Beach (DMT)*</b>	<b>Red Hook (DMT)*</b>	<b>North River (DMT)*</b>	<b>Wards Island (DMT)*</b>	<b>PVSC (DMT)*</b>	<b>TOTALS (DMT)*</b>
Jan-13										0.00
Feb-13										0.00
Mar-13										0.00
Apr-13										0.00
May-13										0.00
Jun-13										0.00
Jul-13										0.00
Aug-13										0.00
Sep-13										0.00
Oct-13										0.00
Nov-13										0.00
Dec-13										0.00
<b>TOTALS</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>

**Notes:**

\*Liquid sludge transportation is expressed in dry metric tons (DMT).

**Table 4B**  
**Monthly Biosolids Allocations to Contractors**  
**Hunts Point Dewatering Facility**

<b>Month</b>							<b>TOTALS</b>  (DMT)*
	Tully Environmental Contract 947 ADM3 (DMT)*	EPIC (Landfill) Contract 1247-BIO (DMT)*	Coastal Distributions Contract 1250-BIO (DMT)*	Interstate Waste Services Contract 1280-BIO (DMT)*	We Care Organics Contract 1236-BIO (DMT)*	We Care Organics Contract 1308-BIO (DMT)*	
Jan-13		136.37	115.95	2627.34			2,879.66
Feb-13		90.85		2158.39			2,249.24
Mar-13				2117.50			2,117.50
Apr-13				2156.94			2,156.94
May-13	18.58			2830.52			2,849.10
Jun-13		77.07		2391.81			2,468.88
Jul-13		30.54		2361.43			2,391.97
Aug-13				2394.40			2,394.40
Sep-13		169.32		2256.51			2,425.83
Oct-13		21.22		2024.76			2,045.98
Nov-13		319.16		1624.57	71.32		1,943.73
Dec-13		356.38		1706.10			2,062.48
<b>TOTALS</b>	<b>18.58</b>	<b>1,200.91</b>	<b>115.95</b>	<b>26,650.27</b>	<b>71.32</b>		<b>27,985.71</b>

**Notes:**

\*Biosolids allocation is expressed in dry metric tons (DMT).

## **APPENDIX - B**

Table 5A.....Monthly Average Metals Data for Liquid  
Sludge

Table 5B.....Monthly Average Metals Data for  
Biosolids

**Table 5A**  
**Monthly Metals Concentrations for Liquid Sludge**  
**Hunts Point WWTP**

Month	METALS										
	Arsenic mg/L	Beryllium mg/L	Cadmium mg/L	Chromium mg/L	Copper mg/L	Lead mg/L	Mercury mg/L	Molybdenum mg/L	Nickel mg/L	Selenium mg/L	Zinc mg/L
January-13	0.0992	0.0054	0.1150	1.2200	14.70	3.03	0.0362	0.1420	0.6800	0.1120	21.2
February-13	0.1130	0.0045	0.1050	1.3900	14.00	3.03	0.0274	0.1410	0.8160	0.1110	20.6
March-13	0.0924	0.0041	0.0975	1.2300	11.50	2.90	0.0286	0.1220	0.6760	0.0933	18.3
April-13	0.0992	0.0044	0.0783	1.0300	12.00	2.67	0.0283	0.1140	0.6760	0.0945	17.2
May-13	0.0951	0.0051	0.0831	1.2600	11.70	3.26	0.0280	0.1250	0.7570	0.0871	19.5
June-13	0.0862	0.0045	0.0898	1.1200	11.30	3.38	0.0297	0.1190	0.6730	0.0894	18.7
July-13	0.0694	0.0041	0.0781	1.0100	10.80	3.25	0.0261	0.1400	0.5510	0.0815	18.3
August-13	0.0679	0.0048	0.0375	0.9390	13.20	3.06	0.0280	0.1550	0.5550	0.0910	20.1
September-13	0.0520	0.0026	0.0636	1.0300	13.90	3.13	0.0270	0.1600	0.5460	0.0818	18.3
October-13	0.0492	0.0026	0.0587	0.8670	14.10	2.67	0.0226	0.1440	0.5250	0.0838	17.3
November-13	0.0474	0.0025	0.0638	1.1900	14.80	2.45	0.0292	0.1740	0.6010	0.0842	17.4
December-13	0.0517	0.0023	0.0639	1.1000	14.00	2.72	0.0260	0.1660	0.6600	0.0752	17.2

**Table 5B**  
**Monthly Metals Concentrations for Biosolids**  
**Hunts Point Dewatering Facility**

Month	METALS									
	Arsenic mg/Kg	Cadmium mg/Kg	Chromium mg/Kg	Copper mg/Kg	Lead mg/Kg	Mercury mg/Kg	Molybdenum mg/Kg	Nickel mg/Kg	Selenium mg/Kg	Zinc mg/Kg
January-13	3.93	6.94	58.5	662.0	143.0	1.7	7.7	30.0	4.8	1035.0
February-13	5.03	6.52	61.4	648.0	149.0	1.5	9.1	30.1	4.6	1032.0
March-13	4.92	5.73	59.8	631.0	153.0	2.0	6.5	30.2	4.2	966.0
April-13	4.42	4.35	50.0	556.0	142.0	1.5	7.0	26.1	4.6	930.0
May-13	4.21	4.84	53.8	579.0	147.0	1.5	9.5	28.2	5.1	944.0
June-13	3.80	4.99	51.20	527.00	176.0	1.9	8.9	25.9	4.0	940.0
July-13	2.24	4.36	49.00	618.00	174.0	1.8	11.6	25.2	3.0	1014.0
August-13	3.72	3.20	48.20	712.00	172.0	1.6	13.5	27.7	3.9	1259.0
September-13	2.83	4.08	51.00	702.00	171.0	1.6	10.5	25.2	4.1	1062.0
October-13	2.53	4.03	48.70	803.00	147.0	1.6	11.1	26.8	4.1	986.0
November-13	2.98	4.40	57.90	724.00	150.0	1.7	14.0	27.2	4.5	1014.0
December-13	3.05	4.47	51.00	628.00	144.0	1.5	11.6	27.2	4.0	893.0

**JAMAICA**



**City of New York  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
Bureau of Wastewater Treatment**

**JAMAICA  
WASTEWATER TREATMENT PLANT**

US EPA 40 CFR Part 503  
Use or Disposal of Sewage Sludge  
2013 Annual Report

Prepared for

**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**

Prepared by

City of New York, Department of Environmental Protection  
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96-05 Horace Harding Expressway  
Corona, New York 11368  
(718) 595-5056



February 2014

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Table 4B, Monthly Biosolids Allocations
- Appendix B - Table 5A, Monthly Average Metals Data for Liquid Sludge  
Table 5B, Monthly Average Metals Data for Biosolids

Requisite information, specific to the Jamaica WWTP is provided below.

FACILITY NAME	LOCATION	DEWATERING FACILITY	SPDES PERMIT #	CONTACT PERSON	PROCESS ENGINEER
Jamaica Wastewater Treatment Plant	150-20 134th Street Jamaica, NY 11430	Yes	NY0026115	Superintendent Courtney Anderson (718) 529-3549	Don Akamnonu

#### **Additional Permits**

Facility Name	Location	Permit Name	Permit #	Type of Permit (Federal, State)
Jamaica Wastewater Treatment Plant	150-20 134th Street Jamaica, NY 11430	Air State Facility Permit	263080002102002	State

### **I. JAMAICA DEWATERED SLUDGE QUANTITIES**

#### **A. DEWATERING FACILITY ALLOCATIONS**

For the reporting period of January 1 through December 31, 2013 all anaerobically digested, thickened sewage sludge generated at Jamaica was dewatered at the 26<sup>th</sup> Ward sludge dewatering facility. Approximately **8,988** dry metric tons of Jamaica sludge were generated. Table 3 and Table 4A of Appendix A contains the monthly liquid sludge production and allocation figures in dry metric tons for this reporting period.

## **II. JAMAICA LIQUID SLUDGE AND BIOSOLIDS QUALITY**

### **A. METALS ANALYSES**

Table 5A of Appendix B summarizes the average monthly metals concentrations for the liquid sludge generated at the Jamaica WWTP. The monthly metals concentrations represent an arithmetic average of the results from the analyses of all samples of Jamaica biosolids generated each month.

## **III. JAMAICA BIOSOLIDS ALLOCATION**

**NOTE:** The Jamaica Dewatering Facility has been shut down for the reporting period of January 1 through December 31, 2013.

## **APPENDICES**

## **APPENDIX - A**

Table 3.....	Monthly Liquid Sludge Allocation
Table 4A.....	Monthly Liquid Sludge Allocations to Contractors
Table 4B.....	Monthly Biosolids Allocations to Contractors

**Table 3**  
**Monthly Liquid Sludge Production**  
**Jamaica WWTP**

<b>Month</b>	<b>Liquid Sludge Production (DMT)*</b>
January-13	856
February-13	650
March-13	701
April-13	725
May-13	772
June-13	816
July-13	789
August-13	810
September-13	730
October-13	717
November-13	653
December-13	769
<b>TOTALS</b>	<b>8,988</b>

**Notes:**

\* Dewatered sludge production is expressed in dry metric tons (DMT).



**Table 4A**  
**Monthly Liquid Sludge Allocations**  
**Jamaica WWTP**

<b>Month</b>	<b>26th Ward (DMT)*</b>	<b>Bowery Bay (DMT)*</b>	<b>Hunts Point (DMT)*</b>	<b>Jamaica (DMT)*</b>	<b>Oakwood Beach (DMT)*</b>	<b>Red Hook (DMT)*</b>	<b>North River (DMT)*</b>	<b>Wards Island (DMT)*</b>	<b>PVSC (DMT)*</b>	<b>TOTALS (DMT)*</b>
Jan-13	825.00									825.00
Feb-13	610.00									610.00
Mar-13	683.00									683.00
Apr-13	712.00									712.00
May-13	798.00									798.00
Jun-13	781.00									781.00
Jul-13	736.00									736.00
Aug-13	872.00									872.00
Sep-13	730.00									730.00
Oct-13	716.00									716.00
Nov-13	657.00									657.00
Dec-13	772.00									772.00
<b>TOTALS</b>	<b>8,892.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>8,892.00</b>

**Notes:**

\*Liquid sludge transportation is expressed in dry metric tons (DMT).

**Table 4B**  
**Monthly Biosolids Allocations to Contractors**  
**Jamaica Dewatering Facility**

<b>Month</b>							<b>TOTALS</b>  (DMT)*
	Tully Environmental Contract 947 ADM3 (DMT)*	EPIC (Landfill) Contract 1247-BIO (DMT)*	Coastal Distributions Contract 1250-BIO (DMT)*	Interstate Waste Services Contract 1280-BIO (DMT)*	We Care Organics Contract 1236-BIO (DMT)*	We Care Organics Contract 1308-BIO (DMT)*	
Jan-13							0.00
Feb-13							0.00
Mar-13							0.00
Apr-13							0.00
May-13							0.00
Jun-13							0.00
Jul-13							0.00
Aug-13							0.00
Sep-13							0.00
Oct-13							0.00
Nov-13							0.00
Dec-13							0.00
<b>TOTALS</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>		<b>0.00</b>

**Notes:**

\*Biosolids allocation is expressed in dry metric tons (DMT).

## **APPENDIX - B**

Table 5A.....Monthly Average Metals Data for Liquid  
Sludge

Table 5B.....Monthly Average Metals Data for  
Biosolids

**Table 5A**  
**Monthly Metals Concentrations for Liquid Sludge**  
**Jamaica WWTP**

Month	METALS										
	Arsenic mg/L	Beryllium mg/L	Cadmium mg/L	Chromium mg/L	Copper mg/L	Lead mg/L	Mercury mg/L	Molybdenum mg/L	Nickel mg/L	Selenium mg/L	Zinc mg/L
January-13	0.0326	0.0014	0.0439	0.1960	4.63	0.91	0.0103	0.0692	0.1320	0.0433	8.7
February-13	0.0447	0.0015	0.0487	0.2350	4.63	1.06	0.0115	0.0579	0.1850	0.0507	10.0
March-13	0.0641	0.0024	0.0729	0.4040	7.83	1.72	0.0308	0.0995	0.2370	0.0829	14.6
April-13	0.0441	0.0017	0.0413	0.2400	4.29	1.12	0.0160	0.0510	0.1450	0.0477	9.4
May-13	0.0432	0.0024	0.0516	0.2180	4.10	0.97	0.0134	0.0461	0.1550	0.0461	10.0
June-13	0.0501	0.0020	0.0562	0.2460	4.84	1.26	0.0154	0.0409	0.1630	0.0488	9.8
July-13	0.0433	0.0018	0.0531	0.2690	5.56	1.32	0.0136	0.0833	0.1940	0.0552	11.8
August-13	0.0340	0.0017	0.0138	0.1820	4.53	1.14	0.0162	0.0596	0.1550	0.0417	8.8
September-13	0.0413	0.0014	0.0430	0.2570	6.49	1.49	0.0166	0.0841	0.1870	0.0655	11.9
October-13	0.0445	0.0015	0.0379	0.2460	7.00	1.34	0.0165	0.0770	0.1820	0.0748	12.1
November-13	0.0390	0.0016	0.0326	0.2320	7.05	1.38	0.0299	0.0730	0.1730	0.0538	11.3
December-13	0.0427	0.0012	0.0278	0.2330	5.59	1.23	0.0151	0.0714	0.1690	0.0575	9.5

**Table 5B**  
**Monthly Metals Concentrations for Biosolids**  
**Jamaica Dewatering Facility**

Month	METALS									
	Arsenic mg/Kg	Cadmium mg/Kg	Chromium mg/Kg	Copper mg/Kg	Lead mg/Kg	Mercury mg/Kg	Molybdenum mg/Kg	Nickel mg/Kg	Selenium mg/Kg	Zinc mg/Kg
January-13										
February-13										
March-13										
April-13										
May-13										
June-13										
July-13										
August-13										
September-13										
October-13										
November-13										
December-13										

Jamaica Dewatering Shut Down

## **NEWTOWN CREEK**

**City of New York  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
Bureau of Wastewater Treatment**

**NEWTOWN CREEK  
WASTEWATER TREATMENT PLANT**

US EPA 40 CFR Part 503  
Use or Disposal of Sewage Sludge  
2013 Annual Report

Prepared for

**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**

Prepared by

City of New York, Department of Environmental Protection  
Bureau of Wastewater Treatment  
SPDES Compliance Section  
96-05 Horace Harding Expressway  
Corona, New York 11368  
(718) 595-5056



February 2014

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Requisite information, specific to the Newtown Creek WWTP is provided below.

FACILITY NAME	LOCATION	DEWATERING FACILITY	SPDES PERMIT #	CONTACT PERSON	PROCESS ENGINEER
Newtown Creek Wastewater Treatment Plant	329 Greenpoint Avenue Brooklyn, NY 11222	No	NY0026204	Superintendent James Pynn (718) 389-2002	Moein Karim

#### **Additional Permits**

Facility Name	Location	Permit Name	Permit #	Type of Permit (Federal, State)
Newtown Creek Wastewater Treatment Plant	301 Greenpoint Avenue Brooklyn, NY 11222	Title V	261010002500057	Federal

### **I. NEWTOWN CREEK LIQUID SLUDGE QUANTITIES**

#### **A. LIQUID SLUDGE PRODUCTION AND OUTGOING LIQUID SLUDGE ALLOCATIONS**

For the reporting period of January 1 through December 31, 2013 approximately **19,944** dry metric tons of Newtown Creek liquid sludge were generated. The sludge was dewatered at the Bowery Bay, Hunts Point, Wards Island, 26th Ward, Oakwood Beach (transported by force main from Port Richmond), and PVSC dewatering facilities. Table 3 and Table 4A of Appendix A contains the monthly liquid sludge production and allocation figures in dry metric tons for this reporting period.

## **II. NEWTOWN CREEK LIQUID SLUDGE QUALITY**

### **A. METALS ANALYSES**

Table 5A of Appendix B summarizes the average monthly metals concentrations for the liquid sludge generated at the Newtown Creek WWTP. The monthly metals concentrations represent an arithmetic average of the results from the analyses of all samples of Newtown Creek sludge generated each month.

## **III. NEWTOWN CREEK BIOSOLIDS ALLOCATIONS – N/A**

## **APPENDICES**

## **APPENDIX - A**

Table 3.....	Monthly Liquid Sludge Allocation
Table 4A.....	Monthly Liquid Sludge Allocations to Contractors
Table 4B.....	Monthly Biosolids Allocations to Contractors (N/A)

**Table 3**  
**Monthly Liquid Sludge Production**  
**Newtown Creek WWTP**

<b>Month</b>	<b>Liquid Sludge Production (DMT)*</b>
January-13	1,641
February-13	1,827
March-13	1,828
April-13	1,691
May-13	1,987
June-13	1,634
July-13	1,535
August-13	1,547
September-13	1,465
October-13	1,621
November-13	1,670
December-13	1,498
<b>TOTALS</b>	<b>19,944</b>

**Notes:**

\* Dewatered sludge production is expressed in dry metric tons (DMT).

**Table 4A**  
**Monthly Liquid Sludge Allocations**  
**Newtown Creek WWTP**

<b>Month</b>	<b>26th Ward (DMT)*</b>	<b>Bowery Bay (DMT)*</b>	<b>Hunts Point (DMT)*</b>	<b>Port Richmond (DMT)*</b>	<b>Oakwood Beach (DMT)*</b>	<b>Red Hook (DMT)*</b>	<b>North River (DMT)*</b>	<b>Wards Island (DMT)*</b>	<b>PVSC (DMT)*</b>	<b>TOTALS (DMT)*</b>
Jan-13		88.00	1128.00	140.00				323.00	110.00	1,789.00
Feb-13		83.00	631.00	28.00				712.00	0.00	1,454.00
Mar-13		51.00	578.00	84.00				652.00	100.00	1,465.00
Apr-13		48.00	475.00	47.00				811.00	115.00	1,496.00
May-13		113.00	1103.00	133.00				345.00	218.00	1,912.00
Jun-13		342.00	1165.00	174.00				391.00	222.00	2,294.00
Jul-13		76.00	921.00	141.00				444.00	48.00	1,630.00
Aug-13		87.00	1061.00	162.00				512.00	55.00	1,877.00
Sep-13		65.00	625.00	118.00				480.00	118.00	1,406.00
Oct-13		46.00	777.00	135.00				443.00	41.00	1,442.00
Nov-13		75.00	500.00	108.00				625.00	115.00	1,423.00
Dec-13		232.00	721.00	93.00				671.00	142.00	1,859.00
<b>TOTALS</b>	<b>0.00</b>	<b>1,306.00</b>	<b>9,685.00</b>	<b>1,363.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>6,409.00</b>	<b>1,284.00</b>	<b>20,047.00</b>

**Notes:**

\*Liquid sludge transportation is expressed in dry metric tons (DMT).

## **APPENDIX - B**

Table 5A.....Monthly Average Metals Data for Liquid  
Sludge

Table 5B.....Monthly Average Metals Data for  
Biosolids (N/A)



**Table 5A**  
**Monthly Metals Concentrations for Liquid Sludge**  
**Newtown Creek WWTP**

Month	METALS										
	Arsenic mg/L	Beryllium mg/L	Cadmium mg/L	Chromium mg/L	Copper mg/L	Lead mg/L	Mercury mg/L	Molybdenum mg/L	Nickel mg/L	Selenium mg/L	Zinc mg/L
January-13	0.0904	0.0037	0.1520	1.0200	12.00	2.68	0.0319	0.2370	0.5120	0.0815	22.2
February-13	0.1120	0.0038	0.1470	1.1200	13.00	2.98	0.0314	0.2290	0.5210	0.0959	23.7
March-13	0.1090	0.0049	0.1450	1.2000	13.00	3.26	0.0370	0.2380	0.5700	0.0955	22.8
April-13	0.1340	0.0057	0.1650	1.3800	14.50	3.63	0.0493	0.2970	0.5970	0.1220	25.0
May-13	0.1380	0.0066	0.1610	1.4300	14.80	4.07	0.0483	0.3360	0.6430	0.1240	27.2
June-13	0.1280	0.0049	0.1300	1.2100	14.20	4.39	0.0456	0.2990	0.5660	0.1110	23.9
July-13	0.1080	0.0043	0.1100	1.0900	13.60	4.27	0.0439	0.3080	0.5350	0.0924	23.2
August-13	0.0996	0.0047	0.0827	0.9930	14.40	4.06	0.0425	0.3280	0.5600	0.0981	21.8
September-13	0.0839	0.0023	0.1060	1.0100	13.80	3.61	0.0341	0.3110	0.4390	0.0888	20.2
October-13	0.0990	0.0026	0.1590	1.1500	15.40	3.58	0.0381	0.3560	0.4820	0.1040	22.5
November-13	0.0975	0.0025	0.1710	1.1800	16.00	3.30	0.0366	0.3860	0.4940	0.1060	23.2
December-13	0.0826	0.0022	0.1230	1.0300	12.80	2.97	0.0318	0.3240	0.5650	0.0811	19.3

## **NORTH RIVER**

**City of New York  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
Bureau of Wastewater Treatment**

**NORTH RIVER  
WASTEWATER TREATMENT PLANT**

US EPA 40 CFR Part 503  
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96-05 Horace Harding Expressway  
Corona, New York 11368  
(718) 595-5056



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Table 4A, Monthly Liquid Sludge Allocations to Contractors
- Appendix B - Table 5A, Monthly Average Metals Data

Requisite information, specific to the North River WWTP is provided below.

FACILITY NAME	LOCATION	DEWATERING FACILITY	SPDES PERMIT #	CONTACT PERSON	PROCESS ENGINEER
North River Wastewater Treatment Plant	725 West 135 <sup>th</sup> Street New York, NY 10031	No	NY0026247	Superintendent Steven Askew (212) 491-5050	George Sarkissian

#### **Additional Permits**

Facility Name	Location	Permit Name	Permit #	Type of Permit (Federal, State)
North River Wastewater Treatment Plant	725 West 135 <sup>th</sup> Street New York, NY 10031	Title V	262020000700015	Federal
North River Wastewater Treatment Plant	725 West 135 <sup>th</sup> Street New York, NY 10031	Air State Facility Permit for 1 emergency engine generator	262020000700019	State

### **I. NORTH RIVER LIQUID SLUDGE QUANTITIES**

#### **A. LIQUID SLUDGE PRODUCTION AND OUTGOING LIQUID SLUDGE ALLOCATIONS**

For the reporting period of January 1 through December 31, 2013 approximately **14,733** dry metric tons of North River liquid sludge were generated. The sludge was dewatered at the Bowery Bay, Hunts Point, Wards Island, Oakwood Beach (transported by force main from Port Richmond) and PVSC dewatering facilities. Table 3 and Table 4A of Appendix A contains the monthly liquid sludge production and allocation figures in dry metric tons for this reporting period.

## **II. NORTH RIVER LIQUID SLUDGE QUALITY**

### **A. METALS ANALYSES**

Table 5A of Appendix B summarizes the average monthly metals concentrations for the liquid sludge generated at the North River WWTP. The monthly metals concentrations represent an arithmetic average of the results from the analyses of all samples of North River sludge generated each month.

## **III. NORTH RIVER BIOSOLIDS ALLOCATIONS – N/A**

## **APPENDICES**



## **APPENDIX - A**

Table 3.....	Monthly Liquid Sludge Allocation
Table 4A.....	Monthly Liquid Sludge Allocations to Contractors
Table 4B.....	Monthly Biosolids Allocations to Contractors (N/A)

**Table 3**  
**Monthly Liquid Sludge Production**  
**North River WWTP**

<b>Month</b>	<b>Liquid Sludge Production (DMT)*</b>
January-13	968
February-13	895
March-13	1,018
April-13	982
May-13	1,161
June-13	814
July-13	1,222
August-13	1,487
September-13	1,315
October-13	2,047
November-13	1,714
December-13	1,111
<b>TOTALS</b>	<b>14,733</b>

**Notes:**

\* Dewatered sludge production is expressed in dry metric tons (DMT).

**Table 4A**  
**Monthly Liquid Sludge Allocations**  
**North River WWTP**

<b>Month</b>	<b>26th Ward (DMT)*</b>	<b>Bowery Bay (DMT)*</b>	<b>Hunts Point (DMT)*</b>	<b>Port Richmond (DMT)*</b>	<b>Oakwood Beach (DMT)*</b>	<b>Red Hook (DMT)*</b>	<b>Wards Island (DMT)*</b>	<b>PVSC (DMT)*</b>	<b>TOTALS (DMT)*</b>
Jan-13		0.00	171.00	20.00			546.00	15.00	752.00
Feb-13		23.00	394.00	0.00			499.00	0.00	916.00
Mar-13		40.00	450.00	0.00			482.00	0.00	972.00
Apr-13		32.00	588.00	92.00			259.00	0.00	971.00
May-13		211.00	557.00	106.00			283.00	0.00	1,157.00
Jun-13		246.00	408.00	226.00			80.00	28.00	988.00
Jul-13		218.00	535.00	153.00			210.00	0.00	1,116.00
Aug-13		284.00	695.00	199.00			273.00	0.00	1,451.00
Sep-13		133.00	553.00	81.00			336.00	27.00	1,130.00
Oct-13		25.00	637.00	108.00			465.00	0.00	1,235.00
Nov-13		33.00	533.00	103.00			605.00	59.00	1,333.00
Dec-13		0.00	374.00	37.00			354.00	0.00	765.00
<b>TOTALS</b>	<b>0.00</b>	<b>1,245.00</b>	<b>5,895.00</b>	<b>1,125.00</b>	<b>0.00</b>	<b>0.00</b>	<b>4,392.00</b>	<b>129.00</b>	<b>12,786.00</b>

**Notes:**

\*Liquid sludge transportation is expressed in dry metric tons (DMT).

## **APPENDIX - B**

Table 5A.....Monthly Average Metals Data for Liquid  
Sludge

Table 5B.....Monthly Average Metals Data for  
Biosolids (N/A)

**Table 5A**  
**Monthly Metals Concentrations for Liquid Sludge**  
**North River WWTP**

Month	METALS										
	Arsenic mg/L	Beryllium mg/L	Cadmium mg/L	Chromium mg/L	Copper mg/L	Lead mg/L	Mercury mg/L	Molybdenum mg/L	Nickel mg/L	Selenium mg/L	Zinc mg/L
January-13	0.0509	0.0021	0.0443	0.3510	8.74	1.99	0.0260	0.2250	0.2840	0.0504	13.1
February-13	0.0916	0.0028	0.0468	0.4220	8.90	2.12	0.0222	0.2210	0.3270	0.0465	13.6
March-13	0.0921	0.0027	0.0547	0.4490	9.37	2.34	0.0228	0.2320	0.3520	0.0508	14.8
April-13	0.0580	0.0018	0.0393	0.3290	7.61	1.72	0.0203	0.2080	0.2590	0.0505	12.2
May-13	0.0581	0.0033	0.0446	0.4200	7.38	2.29	0.0207	0.2240	0.3070	0.0486	13.5
June-13	0.0442	0.0022	0.0326	0.3300	5.94	2.13	0.0165	0.1600	0.2500	0.0350	10.2
July-13	0.0364	0.0020	0.0332	0.3590	6.80	2.56	0.0228	0.2620	0.2400	0.0350	11.6
August-13	0.0376	0.0022	0.0206	0.3030	7.78	2.26	0.0169	0.3260	0.2310	0.0385	11.9
September-13	0.0376	0.0016	0.0340	0.3500	7.99	2.34	0.0149	0.2900	0.2420	0.0492	13.2
October-13	0.0437	0.0021	0.0418	0.3840	10.30	2.36	0.0222	0.4340	0.2560	0.0668	15.6
November-13	0.0366	0.0016	0.0354	0.3180	10.60	1.95	0.0160	0.4840	0.2450	0.0551	14.4
December-13	0.0470	0.0018	0.0484	0.4460	10.90	2.45	0.0274	0.3650	0.3260	0.0676	16.0

## **OAKWOOD BEACH**

**City of New York  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
Bureau of Wastewater Treatment**

**OAKWOOD BEACH  
WASTEWATER TREATMENT PLANT**

US EPA 40 CFR Part 503  
Use or Disposal of Sewage Sludge  
2013 Annual Report

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**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**

Prepared by

City of New York, Department of Environmental Protection  
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SPDES Compliance Section  
96-05 Horace Harding Expressway  
Corona, New York 11368  
(718) 595-5056



February 2014

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Requisite information, specific to the Oakwood Beach WWTP is provided below.

FACILITY NAME	LOCATION	DEWATERING FACILITY	SPDES PERMIT #	CONTACT PERSON	PROCESS ENGINEER
Oakwood Beach Wastewater Treatment Plant	751 Mill Road Staten Island, NY 10306	Yes	NY0026174	Superintendent Phillip Rocle (718) 351-8882	Barbara Sallusto

#### **Additional Permits**

Facility Name	Facility Location	Permit Name	Permit #	Type of Permit (Federal, State)
Oakwood Beach Wastewater Treatment Plant	751 Mill Road Staten Island, NY 10306	Registration	264040006502000	State

### **I. OAKWOOD BEACH LIQUID SLUDGE QUANTITIES**

#### **A. LIQUID SLUDGE PRODUCTION AND OUTGOING LIQUID SLUDGE ALLOCATIONS**

For the reporting period of January 1 through December 31, 2013 all anaerobically digested, thickened sewage sludge generated at Oakwood Beach was dewatered at the Oakwood Beach sludge dewatering facility. Approximately **4,619** dry metric tons of Oakwood Beach sludge were generated. Table 3 and Table 4A of Appendix A contain the monthly liquid sludge production and allocations figures in dry metric tons for this reporting period.

## II. OAKWOOD BEACH LIQUID SLUDGE AND BIOSOLIDS QUALITY

### A. METALS ANALYSES

Table 5A and Table 5B of Appendix B summarize the average monthly metals concentrations for the liquid sludge and biosolids generated at the Oakwood Beach WWTP. The monthly metals concentrations represent an arithmetic average of the results from the analyses of all samples of Oakwood Beach biosolids generated each month.

During this reporting period, Oakwood Beach biosolids contained concentrations of metals that always met the **Ceiling Concentration Limits** for twelve (12) months as listed in *Table 1 of 40 CFR Part 503.13(b)(1)*. Further, during twelve (12) months in 2013, Oakwood Beach biosolids contained concentrations of metals that met the **Pollutant Concentration Limits** as listed in *Table 3 of 40 CFR Part 503.13(b)(1)*.

### III. OAKWOOD BEACH BIOSOLIDS ALLOCATIONS

**BIOSOLIDS FROM THE OAKWOOD BEACH WASTEWATER TREATMENT PLANT DISTRIBUTED TO SLUDGE MANAGEMENT CONTRACTORS AT THE OAKWOOD BEACH DEWATERING FACILITY. (SUMMARY IS SHOWN IN TABLE 4B IN APPENDIX B).**

#### A. Tully Environmental under Contract 947ADM3

Approximately **3,603.75** dry metric tons of the biosolids mix were distributed to **Tully Environmental** (see introduction for processing details) from the Oakwood Beach dewatering facility during this reporting period.

#### B. EPIC under Contract 1247-BIO

Approximately **870.99** dry metric tons of the biosolids mix were distributed to **EPIC** (see introduction for processing details) from the Oakwood Beach dewatering facility during this reporting period.

#### C. Coastal Distribution under Contract 1250-BIO

During this reporting period **no** dry metric tons of the biosolids mix were distributed to **Coastal Distribution** (see introduction for processing details) from the Oakwood Beach dewatering facility.

#### D. Interstate Waste Services under Contract 1280-BIO

Approximately **5,232.94** dry metric tons of the biosolids mix were distributed to **Interstate Waste Services** (see introduction for processing details) from the Oakwood Beach dewatering facility during this reporting period.

#### E. We Care Organics under Contract 1236-BIO

Approximately **309.21** dry metric tons of the biosolids mix were distributed to **We Care Organics** (see introduction for processing details) from the Oakwood Beach dewatering facility during this reporting period.

**F. We Care Organics under Contract 1308-BIO**

During this reporting period **no** dry metric tons of the biosolids mix were distributed to **We Care Organics** (see introduction for processing details) from the Oakwood Beach dewatering facility.

Table 2 in the introduction Section contains requisite information specific to each of the eight sludge management contractors.

## **APPENDICES**

## **APPENDIX - A**

Table 3.....	Monthly Liquid Sludge Allocation
Table 4A.....	Monthly Liquid Sludge Allocations to Contractors
Table 4B.....	Monthly Biosolids Allocations to Contractors

**Table 3**  
**Monthly Liquid Sludge Production**  
**Oakwood Beach WWTP**

<b>Month</b>	<b>Liquid Sludge Production (DMT)*</b>
January-13	510
February-13	455
March-13	348
April-13	339
May-13	420
June-13	388
July-13	422
August-13	260
September-13	351
October-13	344
November-13	404
December-13	379
<b>TOTALS</b>	4,619

**Notes:**

\* Dewatered sludge production is expressed in dry metric tons (DMT).



**Table 4A**  
**Monthly Liquid Sludge Allocations**  
**Oakwood Beach WWTP**

<b>Month</b>	<b>26th Ward (DMT)*</b>	<b>Bowery Bay (DMT)*</b>	<b>Hunts Point (DMT)*</b>	<b>Jamaica (DMT)*</b>	<b>Oakwood Beach (DMT)*</b>	<b>Red Hook (DMT)*</b>	<b>North River (DMT)*</b>	<b>Wards Island (DMT)*</b>	<b>PVSC (DMT)*</b>	<b>TOTALS (DMT)*</b>
Jan-13										0.00
Feb-13										0.00
Mar-13										0.00
Apr-13										0.00
May-13										0.00
Jun-13										0.00
Jul-13										0.00
Aug-13										0.00
Sep-13										0.00
Oct-13										0.00
Nov-13										0.00
Dec-13										0.00
<b>TOTALS</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>

**Notes:**

\*Liquid sludge transportation is expressed in dry metric tons (DMT).

**Table 4B**  
**Monthly Biosolids Allocations to Contractors**  
**Oakwood Beach Dewatering Facility**

<b>Month</b>							<b>TOTALS</b>  (DMT)*
	Tully Environmental Contract 947 ADM3 (DMT)*	EPIC (Landfill) Contract 1247-BIO (DMT)*	Coastal Distributions Contract 1250-BIO (DMT)*	Interstate Waste Services Contract 1280-BIO (DMT)*	We Care Organics Contract 1236-BIO (DMT)*	We Care Organics Contract 1308-BIO (DMT)*	
Jan-13	784.88						784.88
Feb-13	417.39						417.39
Mar-13	767.04						767.04
Apr-13				351.33	278.74		630.07
May-13	841.39			19.61	30.46		891.46
Jun-13	793.05	40.57		271.43			1,105.05
Jul-13		89.48		780.47			869.95
Aug-13		690.62		377.97			1,068.59
Sep-13				996.00			996.00
Oct-13				832.16			832.16
Nov-13				859.69			859.69
Dec-13		50.33		744.28			794.60
<b>TOTALS</b>	<b>3,603.75</b>	<b>870.99</b>	<b>0.00</b>	<b>5,232.94</b>	<b>309.20</b>		<b>10,016.88</b>

**Notes:**

\*Biosolids allocation is expressed in dry metric tons (DMT).

## **APPENDIX - B**

Table 5A.....Monthly Average Metals Data for Liquid  
Sludge

Table 5B.....Monthly Average Metals Data for  
Biosolids

**Table 5A**  
**Monthly Metals Concentrations for Liquid Sludge**  
**Oakwood Beach WWTP**

Month	METALS										
	Arsenic mg/L	Beryllium mg/L	Cadmium mg/L	Chromium mg/L	Copper mg/L	Lead mg/L	Mercury mg/L	Molybdenum mg/L	Nickel mg/L	Selenium mg/L	Zinc mg/L
January-13	0.0829	0.0030	0.1120	0.4250	21.30	1.25	0.0141	0.0943	1.1200	0.0561	18.6
February-13	0.0704	0.0021	0.0705	0.4260	7.84	1.01	0.0147	0.0882	0.9120	0.0636	13.0
March-13	0.0702	0.0020	0.0660	0.3780	7.20	0.86	0.0175	0.0695	0.9800	0.0722	11.5
April-13	0.0676	0.0019	0.0477	0.3250	7.06	0.76	0.0131	0.0678	0.8560	0.0661	10.9
May-13	0.0622	0.0026	0.0506	0.3470	6.97	0.93	0.0133	0.0747	0.8700	0.0682	12.2
June-13	0.0910	0.0023	0.0547	0.4080	6.89	1.07	0.0194	0.0641	1.0100	0.0774	12.0
July-13	0.0661	0.0025	0.0538	0.4130	7.35	1.26	0.0197	0.0851	0.9780	0.0521	12.9
August-13	0.0565	0.0023	0.0155	0.2870	6.89	0.78	0.0124	0.0697	0.8330	0.0525	11.1
September-13	0.0506	0.0015	0.0311	0.2770	7.37	0.85	0.0176	0.0702	0.6740	0.0490	11.9
October-13	0.0475	0.0016	0.0323	0.2670	7.08	0.84	0.0195	0.0769	0.5710	0.0556	11.7
November-13	0.0496	0.0022	0.0302	0.2730	8.48	0.77	0.0140	0.0766	0.5530	0.0709	12.0
December-13	0.0590	0.0020	0.0374	0.3420	8.39	0.86	0.0143	0.1020	0.6700	0.0707	12.5

**Table 5B**  
**Monthly Metals Concentrations for Biosolids**  
**Oakwood Beach Dewatering Facility**

Month	METALS									
	Arsenic mg/Kg	Cadmium mg/Kg	Chromium mg/Kg	Copper mg/Kg	Lead mg/Kg	Mercury mg/Kg	Molybdenum mg/Kg	Nickel mg/Kg	Selenium mg/Kg	Zinc mg/Kg
January-13	4.77	5.06	36.5	467.0	95.5	1.6	7.8	45.5	4.3	852.0
February-13	4.05	5.38	32.9	479.0	72.8	1.2	5.4	55.2	3.8	831.0
March-13	4.90	4.39	32.1	424.0	81.3	2.2	5.4	56.2	3.1	751.0
April-13	5.14	3.76	32.7	450.0	73.8	1.3	6.9	49.8	5.0	744.0
May-13	4.64	4.20	35.6	488.0	112.0	1.7	8.1	45.8	4.3	883.0
June-13	5.12	4.35	39.20	501.00	143.0	1.5	8.6	51.0	3.7	877.0
July-13	4.30	3.84	39.80	464.00	111.0	1.4	7.7	58.9	4.6	908.0
August-13	4.83	2.33	39.30	623.00	144.0	1.4	16.1	48.5	4.2	1140.0
September-13	3.19	2.96	35.40	500.00	97.6	1.1	7.4	37.1	4.2	872.0
October-13	2.98	3.03	28.80	544.00	101.0	1.1	11.1	29.6	3.7	886.0
November-13	3.10	3.54	36.30	584.00	107.0	1.3	14.1	27.6	3.9	898.0
December-13	3.63	2.73	29.40	466.00	85.4	1.1	7.9	30.7	3.1	775.0

**OWLS HEAD**

**City of New York  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
Bureau of Wastewater Treatment**

**OWLS HEAD  
WASTEWATER TREATMENT PLANT**

US EPA 40 CFR Part 503  
Use or Disposal of Sewage Sludge  
2013 Annual Report

Prepared for

**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**

Prepared by

City of New York, Department of Environmental Protection  
Bureau of Wastewater Treatment  
SPDES Compliance Section  
96-05 Horace Harding Expressway  
Corona, New York 11368  
(718) 595-5056



February 2014

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Table 4A, Monthly Liquid Sludge Allocations
- Appendix B - Table 5A, Monthly Average Metals Data for Liquid Sludge

Requisite information, specific to the Owls Head WWTP is provided below.

FACILITY NAME	LOCATION	DEWATERING FACILITY	SPDES PERMIT #	CONTACT PERSON	PROCESS ENGINEER
Owls Head Wastewater Treatment Plant	6700 Shore Road Brooklyn, NY 11220	No	NY0026166	Superintendent William Grandner (718) 748-3177	Lewis Duvalsaint

#### **Additional Permits**

Facility Name	Location	Permit Name	Permit #	Type of Permit (Federal, State)
Owls Head Wastewater Treatment Plant	6700 Shore Road Brooklyn, NY 11220	Title V	261020000500017	Federal

### **I. OWLS HEAD LIQUID SLUDGE QUANTITIES**

#### **A. LIQUID SLUDGE PRODUCTION AND OUTGOING LIQUID SLUDGE ALLOCATIONS**

For the reporting period of January 1 through December 31, 2013 approximately **11,654** dry metric tons of Owls Head liquid sludge were generated. The sludge was dewatered at the 26<sup>th</sup> Ward, Bowery Bay, Hunts Point, Wards Island, Oakwood Beach (transported by force main from Port Richmond) and PVSC dewatering facilities. Table 3 and Table 4A of Appendix A contains the monthly liquid sludge production and allocation figures in dry metric tons for this reporting period.

## **II. OWLS HEAD LIQUID SLUDGE QUALITY**

### **A. METALS ANALYSES**

Table 5A of Appendix B summarizes the average monthly metals concentrations for the liquid sludge generated at the Owls Head WWTP. The monthly metals concentrations represent an arithmetic average of the results from the analyses of all samples of Owls Head sludge generated each month.

## **III. OWLS HEAD BIOSOLIDS ALLOCATIONS – N/A**

## **APPENDICES**

## **APPENDIX - A**

Table 3.....	Monthly Liquid Sludge Allocation
Table 4A.....	Monthly Liquid Sludge Allocations to Contractors
Table 4B.....	Monthly Biosolids Allocations to Contractors (N/A)

**Table 3**  
**Monthly Liquid Sludge Production**  
**Owls Head WWTP**

<b>Month</b>	<b>Liquid Sludge Production (DMT)*</b>
January-13	1,348
February-13	992
March-13	532
April-13	630
May-13	489
June-13	480
July-13	1,200
August-13	1,102
September-13	1,174
October-13	1,211
November-13	1,134
December-13	1,362
<b>TOTALS</b>	<b>11,654</b>

**Notes:**

\* Dewatered sludge production is expressed in dry metric tons (DMT).

**Table 4A**  
**Monthly Liquid Sludge Allocations**  
**Owls Head WWTP**

<b>Month</b>	<b>26th Ward (DMT)*</b>	<b>Bowery Bay (DMT)*</b>	<b>Hunts Point (DMT)*</b>	<b>Port Richmond (DMT)*</b>	<b>Oakwood Beach (DMT)*</b>	<b>Red Hook (DMT)*</b>	<b>North River (DMT)*</b>	<b>Wards Island (DMT)*</b>	<b>PVSC (DMT)*</b>	<b>TOTALS (DMT)*</b>
Jan-13		61.00	671.00		107.00			131.00	163.00	1,133.00
Feb-13	61.00	33.00	271.00		37.00			241.00	500.00	1,143.00
Mar-13			379.00		217.00			301.00	282.00	1,179.00
Apr-13			337.00		32.00			221.00	447.00	1,037.00
May-13		124.00	385.00		166.00			170.00	418.00	1,263.00
Jun-13		18.00	94.00		62.00			16.00	378.00	568.00
Jul-13		26.00	139.00		140.00			255.00	466.00	1,026.00
Aug-13		25.00	133.00		133.00			243.00	445.00	979.00
Sep-13		164.00	259.00		310.00			291.00	249.00	1,273.00
Oct-13		34.00	335.00		211.00			483.00	283.00	1,346.00
Nov-13		111.00	227.00		201.00			236.00	222.00	997.00
Dec-13		36.00	429.00		384.00			387.00	396.00	1,632.00
<b>TOTALS</b>	<b>61.00</b>	<b>632.00</b>	<b>3,659.00</b>	<b>0.00</b>	<b>2,000.00</b>	<b>0.00</b>	<b>0.00</b>	<b>2,975.00</b>	<b>4,249.00</b>	<b>13,576.00</b>

**Notes:**

\*Liquid sludge transportation is expressed in dry metric tons (DMT).

## **APPENDIX - B**

Table 5A.....Monthly Average Metals Data for Liquid  
Sludge

Table 5B.....Monthly Average Metals Data for  
Biosolids (N/A)



**Table 5A**  
**Monthly Metals Concentrations for Liquid Sludge**  
**Owls Head WWTP**

Month	METALS										
	Arsenic mg/L	Beryllium mg/L	Cadmium mg/L	Chromium mg/L	Copper mg/L	Lead mg/L	Mercury mg/L	Molybdenum mg/L	Nickel mg/L	Selenium mg/L	Zinc mg/L
January-13	0.0366	0.0012	0.0230	0.1750	4.34	1.06	0.0115	0.0491	0.1360	0.0354	7.9
February-13	0.0318	0.0009	0.0204	0.1500	3.91	0.77	0.0105	0.0505	0.1150	0.0281	6.8
March-13	0.0377	0.0013	0.0233	0.1960	4.62	1.03	0.0150	0.0436	0.1410	0.0359	7.1
April-13	0.0432	0.0010	0.0193	0.1650	3.57	0.87	0.0090	0.0347	0.1180	0.0381	6.6
May-13	0.0397	0.0013	0.0181	0.1570	5.03	0.95	0.0068	0.0317	0.1400	0.0273	6.9
June-13	0.0386	0.0012	0.0150	0.1340	7.50	0.80	0.0109	0.0200	0.1220	0.0289	6.2
July-13	0.0329	0.0010	0.0163	0.1450	3.58	0.95	0.0087	0.0410	0.1680	0.0279	7.3
August-13	0.0513	0.0023	0.0196	0.2860	8.59	1.92	0.0191	0.0686	0.2520	0.0623	14.4
September-13	0.0368	0.0012	0.0210	0.2010	5.29	1.40	0.0104	0.0509	0.2280	0.0456	9.7
October-13	0.0405	0.0013	0.0206	0.2700	5.63	1.31	0.0155	0.0604	0.2410	0.0546	9.5
November-13	0.0446	0.0014	0.0226	0.2450	6.71	1.45	0.0244	0.0664	0.2210	*0.0731	11.5
December-13	0.0671	0.0016	0.0376	0.4390	8.22	2.01	0.0219	0.1040	0.3030	0.0842	13.8

## **PORT RICHMOND**

**City of New York  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
Bureau of Wastewater Treatment**

**PORT RICHMOND  
WASTEWATER TREATMENT PLANT**

US EPA 40 CFR Part 503  
Use or Disposal of Sewage Sludge  
2013 Annual Report

Prepared for

**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**

Prepared by

City of New York, Department of Environmental Protection  
Bureau of Wastewater Treatment  
SPDES Compliance Section  
96-05 Horace Harding Expressway  
Corona, New York 11368  
(718) 595-5056



February 2014

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Table 4A, Monthly Liquid Sludge Allocations
- Appendix B - Table 5A, Monthly Average Metals Data for Liquid Sludge

Requisite information, specific to the Port Richmond WWTP is provided below.

FACILITY NAME	LOCATION	DEWATERING FACILITY	SPDES PERMIT #	CONTACT PERSON	PROCESS ENGINEER
Port Richmond Wastewater Treatment Plant	1801 Richmond Terrace Staten Island, NY 10310	No	NY0026107	Superintendent Andrew Kittle (718) 447-1100	Debra Padmore

#### **Additional Permits**

Facility Name	Location	Permit Name	Permit #	Type of Permit (Federal, State)
Port Richmond Wastewater Treatment Plant	1801 Richmond Terrace Staten Island, NY 10310	Registration	264010001202000	State

### **I. PORT RICHMOND LIQUID SLUDGE QUANTITIES**

#### **A. LIQUID SLUDGE PRODUCTION AND OUTGOING LIQUID SLUDGE ALLOCATIONS**

For the reporting period of January 1 through December 31, 2013 approximately **4,082** dry metric tons of Port Richmond liquid sludge were generated. The sludge was dewatered at the Oakwood Beach (transported by force main), Hunts Point, and Wards Island. Table 3 and Table 4A of Appendix A contains the monthly liquid sludge production and allocation figures in dry metric tons for this reporting period.

## **II. PORT RICHMOND LIQUID SLUDGE QUALITY**

### **B. METALS ANALYSES**

Table 5A of Appendix B summarizes the average monthly metals concentrations for the liquid sludge generated at the Port Richmond WWTP. The monthly metals concentrations represent an arithmetic average of the results from the analyses of all samples of Port Richmond sludge generated each month.

## **III. PORT RICHMOND BIOSOLIDS ALLOCATIONS – N/A**

## **APPENDICES**



## **APPENDIX - A**

Table 3.....	Monthly Liquid Sludge Allocation
Table 4A.....	Monthly Liquid Sludge Allocations to Contractors
Table 4B.....	Monthly Biosolids Allocations to Contractors (N/A)

**Table 3**  
**Monthly Liquid Sludge Production**  
**Port Richmond WWTP**

<b>Month</b>	<b>Liquid Sludge Production (DMT)*</b>
January-13	277
February-13	288
March-13	316
April-13	277
May-13	309
June-13	400
July-13	330
August-13	437
September-13	395
October-13	354
November-13	305
December-13	395
<b>TOTALS</b>	4,082

**Notes:**

\* Dewatered sludge production is expressed in dry metric tons (DMT).

**Table 4A**  
**Monthly Liquid Sludge Allocations**  
**Port Richmond WWTP**

<b>Month</b>	<b>26th Ward (DMT)*</b>	<b>Bowery Bay (DMT)*</b>	<b>Hunts Point (DMT)*</b>	<b>Jamaica (DMT)*</b>	<b>Oakwood Beach (DMT)*</b>	<b>Red Hook (DMT)*</b>	<b>North River (DMT)*</b>	<b>Wards Island (DMT)*</b>	<b>PVSC (DMT)*</b>	<b>TOTALS (DMT)*</b>
Jan-13					277.00					277.00
Feb-13		28.00	32.00		288.00			133.00	34.00	515.00
Mar-13					316.00					316.00
Apr-13			40.00		277.00			75.00		392.00
May-13					357.00					357.00
Jun-13					493.00					493.00
Jul-13					330.00					330.00
Aug-13					437.00					437.00
Sep-13					395.00					395.00
Oct-13					354.00					354.00
Nov-13					305.00					305.00
Dec-13					395.00					395.00
<b>TOTALS</b>	<b>0.00</b>	<b>28.00</b>	<b>72.00</b>	<b>0.00</b>	<b>4,224.00</b>	<b>0.00</b>	<b>0.00</b>	<b>208.00</b>	<b>34.00</b>	<b>4,566.00</b>

**Notes:**

\*Liquid sludge transportation is expressed in dry metric tons (DMT).

## **APPENDIX - B**

Table 5A.....Monthly Average Metals Data for Liquid  
Sludge

Table 5B.....Monthly Average Metals Data for  
Biosolids (N/A)

**Table 5A**  
**Monthly Metals Concentrations for Liquid Sludge**  
**Port Richmond WWTP**

Month	METALS										
	Arsenic mg/L	Beryllium mg/L	Cadmium mg/L	Chromium mg/L	Copper mg/L	Lead mg/L	Mercury mg/L	Molybdenum mg/L	Nickel mg/L	Selenium mg/L	Zinc mg/L
January-13	0.0718	0.0021	0.0349	0.3390	4.11	1.07	0.0086	0.0855	0.6500	0.0226	9.1
February-13	0.0907	0.0025	0.0336	0.3380	4.11	1.01	0.0199	0.1070	0.5290	0.0317	8.5
March-13	0.0886	0.0021	0.0350	0.3920	4.07	1.22	0.0127	0.0978	0.8710	0.0373	11.2
April-13	0.0751	0.0020	0.0229	0.3220	3.38	0.88	0.0105	0.0667	0.4560	0.0292	6.4
May-13	0.0586	0.0025	0.0231	0.3080	3.05	0.96	0.0060	0.0650	0.5960	0.0299	6.4
June-13	0.1140	0.0041	0.0434	0.5840	5.80	1.77	0.0145	0.1080	1.2900	0.0588	12.0
July-13	0.0987	0.0037	0.0404	0.5990	4.89	1.55	0.0097	0.1260	1.2500	0.0500	12.0
August-13	0.0739	0.0028	0.0141	0.3740	5.47	1.17	0.0100	0.1100	0.7070	0.0424	9.1
September-13	0.0462	0.0011	0.0164	0.2280	3.78	0.72	0.0117	0.0810	0.3530	0.0249	6.3
October-13	0.0336	0.0008	0.0098	0.1180	2.17	0.39	0.0423	0.0577	0.1850	0.0199	4.2
November-13	0.0508	0.0012	0.0156	0.2270	3.99	0.70	0.0137	0.1130	0.2830	0.0331	7.0
December-13	0.0312	0.0005	0.0077	0.1020	1.81	0.31	0.0033	0.0442	0.1350	0.0178	3.1

**RED HOOK**

**City of New York  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
Bureau of Wastewater Treatment**

**RED HOOK  
WASTEWATER TREATMENT PLANT**

US EPA 40 CFR Part 503  
Use or Disposal of Sewage Sludge  
2013 Annual Report

Prepared for

**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**

Prepared by

City of New York, Department of Environmental Protection  
Bureau of Wastewater Treatment  
SPDES Compliance Section  
96-05 Horace Harding Expressway  
Corona, New York 11368  
(718) 595-5056



February 2014

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Requisite information, specific to the Red Hook WWTP is provided below.

FACILITY NAME	LOCATION	DEWATERING FACILITY	SPDES PERMIT #	CONTACT PERSON	PROCESS ENGINEER
Red Hook Wastewater Treatment Plant	63 Flushing Ave., Unit 101 Brooklyn, NY 11205	Yes	NY0027073	Superintendent Mahendra Patel (718) 935-1597	Angel Guaraca

#### **Additional Permits**

Facility Name	Location	Permit Name	Permit #	Type of Permit (Federal, State)
Red Hook Wastewater Treatment Plant	63 Flushing Ave., Unit 101 Brooklyn, NY 11205	Registration	261010002302000	State

### **I. RED HOOK DEWATERED SLUDGE QUANTITIES**

#### **A. DEWATERING FACILITY ALLOCATIONS**

For the reporting period of January 1 through December 31, 2013 all anaerobically digested, thickened sewage sludge generated at Red Hook was dewatered at the Red Hook sludge dewatering facility. Approximately **3,963** dry metric tons of Red Hook sludge were generated. Table 3 and Table 4A of Appendix A contains the monthly liquid sludge production and allocation figures in dry metric tons for this reporting period.

## II. RED HOOK LIQUID SLUDGE AND BIOSOLIDS QUALITY

### A. METALS ANALYSES

Table 5A and Table 5B of Appendix B summarize the average monthly metals concentrations for the liquid sludge and biosolids generated at the Red Hook WWTP. The monthly metals concentrations represent an arithmetic average of the results from the analyses of all samples of Red Hook biosolids generated each month.

During this reporting period, Red Hook biosolids contained concentrations of metals that always met the **Ceiling Concentration Limits** for twelve (12) months as listed in *Table 1 of 40 CFR Part 503.13(b)(1)*. Further, during twelve (12) months in 2013, Red Hook biosolids contained concentrations of metals that met the **Pollutant Concentration Limits** as listed in *Table 3 of 40 CFR Part 503.13(b)(1)*.

### III. RED HOOK BIOSOLIDS ALLOCATIONS

**BIOSOLIDS FROM THE RED HOOK WASTEWATER TREATMENT PLANT DISTRIBUTED TO SLUDGE MANAGEMENT CONTRACTORS AT THE RED HOOK DEWATERING FACILITY. (SUMMARY IS SHOWN IN TABLE 4B IN APPENDIX B).**

#### A. Tully Environmental under Contract 947ADM3

Approximately 605.30 dry metric tons of the biosolids mix were distributed to **Tully Environmental** (see introduction for processing details) from the Red Hook dewatering facility during this reporting period.

#### B. EPIC under Contract 1247-BIO

Approximately 971.40 biosolids mix from the Red Hook dewatering facility was distributed to **EPIC** (see introduction for processing details).

#### C. Coastal Distribution under Contract 1250-BIO

During this reporting period no dry metric tons of the biosolids mix were distributed to **Coastal Distribution** (see introduction for processing details) from the Red Hook dewatering facility.

#### D. Interstate Waste Services under Contract 1280-BIO

Approximately 735.13 dry metric tons of the biosolids mix were distributed to **Interstate Waste Services** (see introduction for processing details) from the Red Hook dewatering facility during this reporting period.

#### E. We Care Organics under Contract 1236-BIO

Approximately 413.93 dry metric tons of the biosolids mix were distributed to **We Care Organics** (see introduction for processing details) from the Red Hook dewatering facility during this reporting period.

**F. We Care Organics under Contract 1308-BIO**

During this reporting period no dry metric tons of the biosolids mix were distributed to **We Care Organics** (see introduction for processing details) from the Red Hook dewatering facility.

Table 2 in the Introduction Section contains requisite information specific to each of the seven sludge management contractors.

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Table 4A.....	Monthly Liquid Sludge Allocations to Contractors
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## **APPENDIX - B**

Table 5A.....Monthly Average Metals Data for Liquid  
Sludge

Table 5B.....Monthly Average Metals Data for  
Biosolids



**Table 3**  
**Monthly Liquid Sludge Production**  
**Red Hook WWTP**

<b>Month</b>	<b>Liquid Sludge Production (DMT)*</b>
January-13	345
February-13	377
March-13	333
April-13	235
May-13	271
June-13	358
July-13	285
August-13	372
September-13	348
October-13	398
November-13	321
December-13	321
<b>TOTALS</b>	<b>3,963</b>

**Notes:**

\* Dewatered sludge production is expressed in dry metric tons (DMT)

**Table 4A**  
**Monthly Liquid Sludge Allocations**  
**Red Hook WWTP**

<b>Month</b>	<b>26th Ward (DMT)*</b>	<b>Bowery Bay (DMT)*</b>	<b>Hunts Point (DMT)*</b>	<b>Jamaica (DMT)*</b>	<b>Oakwood Beach (DMT)*</b>	<b>Red Hook (DMT)*</b>	<b>North River (DMT)*</b>	<b>Wards Island (DMT)*</b>	<b>PVSC (DMT)*</b>	<b>TOTALS (DMT)*</b>
Jan-13										0.00
Feb-13										0.00
Mar-13										0.00
Apr-13										0.00
May-13										0.00
Jun-13										0.00
Jul-13										0.00
Aug-13										0.00
Sep-13										0.00
Oct-13										0.00
Nov-13										0.00
Dec-13										0.00
<b>TOTALS</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>

**Notes:**

\*Liquid sludge transportation is expressed in dry metric tons (DMT).

**Table 4B**  
**Monthly Biosolids Allocations to Contractors**  
**Red Hook Dewatering Facility**

<b>Month</b>							<b>TOTALS</b>  (DMT)*
	Tully Environmental Contract 947 ADM3 (DMT)*	EPIC (Landfill) Contract 1247-BIO (DMT)*	Coastal Distributions Contract 1250-BIO (DMT)*	Interstate Waste Services Contract 1280-BIO (DMT)*	We Care Organics Contract 1236-BIO (DMT)*	We Care Organics Contract 1308-BIO (DMT)*	
Jan-13	155.06						155.06
Feb-13	182.42						182.42
Mar-13	156.58				110.05		266.63
Apr-13	111.25			98.32			209.56
May-13		221.29		18.06			239.35
Jun-13		46.15		167.52			213.68
Jul-13		50.66		160.71			211.37
Aug-13		239.66					239.66
Sep-13		290.76					290.76
Oct-13		122.87		152.35			275.22
Nov-13				138.18	87.09		225.27
Dec-13					216.78		216.78
<b>TOTALS</b>	<b>605.30</b>	<b>971.40</b>	<b>0.00</b>	<b>735.13</b>	<b>413.93</b>		<b>2,725.76</b>

**Notes:**

\*Biosolids allocation is expressed in dry metric tons (DMT).

## **WWTP REPORTS**

**Table 5A**  
**Monthly Metals Concentrations for Liquid Sludge**  
**Red Hook WWTP**

Month	METALS										
	Arsenic mg/L	Beryllium mg/L	Cadmium mg/L	Chromium mg/L	Copper mg/L	Lead mg/L	Mercury mg/L	Molybdenum mg/L	Nickel mg/L	Selenium mg/L	Zinc mg/L
January-13	0.0622	0.0022	0.0607	0.3660	7.97	1.78	0.0184	0.1140	0.2240	0.0530	11.9
February-13	0.0819	0.0029	0.0565	0.3830	7.85	1.72	0.0156	0.1110	0.2180	0.0475	11.0
March-13	0.0719	0.0031	0.0527	0.4170	8.13	1.61	0.0257	0.0963	0.2330	0.0524	9.9
April-13	0.1060	0.0047	0.0477	0.4240	11.90	1.71	0.0193	0.1050	0.2900	0.0705	11.2
May-13	0.0790	0.0044	0.0507	0.4320	7.48	1.78	0.0171	0.1150	0.2720	0.0595	11.8
June-13	0.0854	0.0037	0.0538	0.4840	15.40	2.22	0.0175	0.1180	0.3600	0.0602	12.8
July-13	0.0804	0.0034	0.0569	0.4810	17.60	2.27	0.0199	0.1580	0.3780	0.0538	14.6
August-13	0.1550	0.0056	1.3100	0.8170	15.00	4.84	0.0573	0.1880	0.5840	0.0635	18.1
September-13	0.0970	0.0030	0.9790	0.7470	12.20	3.32	0.0467	0.1760	0.4790	0.0670	16.4
October-13	0.0777	0.0027	0.3780	0.6210	10.50	2.08	0.0229	0.1600	0.4670	0.0667	13.8
November-13	0.0601	0.0028	0.1450	0.4800	8.42	1.63	0.0156	0.1860	0.3480	0.0636	12.0
December-13	0.1370	0.0023	0.1650	0.4840	26.60	2.23	0.0222	0.1800	0.3670	0.0624	14.2

**Table 5B**  
**Monthly Metals Concentrations for Biosolids**  
**Red Hook Dewatering Facility**

Month	METALS									
	Arsenic mg/Kg	Cadmium mg/Kg	Chromium mg/Kg	Copper mg/Kg	Lead mg/Kg	Mercury mg/Kg	Molybdenum mg/Kg	Nickel mg/Kg	Selenium mg/Kg	Zinc mg/Kg
January-13	6.36	7.06	37.8	729.0	181.0	2.1	11.8	20.8	5.1	1183.0
February-13	7.24	5.56	37.1	726.0	*292	2.0	10.1	20.6	4.9	1111.0
March-13	6.27	5.02	39.4	622.0	153.0	1.9	7.6	20.2	3.5	914.0
April-13	6.93	4.19	35.5	604.0	147.0	1.5	8.4	20.5	4.1	905.0
May-13	7.01	4.51	39.5	611.0	173.0	1.6	10.6	23.7	5.7	1032.0
June-13	6.49	4.74	40.10	635.00	186.0	1.6	10.5	23.6	4.3	1086.0
July-13	6.46	4.91	43.10	672.00	190.0	1.7	13.3	26.7	6.1	1205.0
August-13	10.00	84.40	60.40	722.00	302.0	3.8	13.0	40.3	4.4	1459.0
September-13	4.78	48.20	47.70	623.00	201.0	2.5	11.3	26.6	3.9	1041.0
October-13	3.94	27.20	38.50	549.00	139.0	1.8	9.5	25.5	3.4	846.0
November-13	3.70	18.40	37.60	606.00	126.0	1.6	11.8	24.2	3.8	890.0
December-13	7.40	15.90	40.30	679.00	161.0	1.9	11.8	22.8	3.3	991.0

**ROCKAWAY**

**City of New York  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
Bureau of Wastewater Treatment**

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**ROCKAWAY  
WASTEWATER TREATMENT PLANT**

US EPA 40 CFR Part 503  
Use or Disposal of Sewage Sludge  
2013 Annual Report

Prepared for

**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**

Prepared by

City of New York, Department of Environmental Protection  
Bureau of Wastewater Treatment  
SPDES Compliance Section  
96-05 Horace Harding Expressway  
Corona, New York 11368  
(718) 595-5056



February 2014



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- Appendix B - Table 5A, Monthly Average Metals Data for Liquid Sludge

Requisite information, specific to the Rockaway WWTP is provided below.

FACILITY NAME	LOCATION	DEWATERING FACILITY	SPDES PERMIT #	CONTACT PERSON	PROCESS ENGINEER
Rockaway Wastewater Treatment Plant	106-21 Beach Channel Drive Rockaway, NY 11235	No	NY0026221	Superintendent Nitin Patel (718) 474-3663	Salvatore Scapelito

#### **Additional Permits**

Facility Name	Location	Permit Name	Permit #	Type of Permit (Federal, State)
Rockaway Wastewater Treatment Plant	106-21 Beach Channel Drive Rockaway, NY 11235	Registration	263090000302000	State

### **I. ROCKAWAY LIQUID SLUDGE QUANTITIES**

#### **A. LIQUID SLUDGE PRODUCTION AND OUTGOING LIQUID SLUDGE ALLOCATIONS**

For the reporting period of January 1 through December 31, 2013 approximately **731.00** dry metric tons of Rockaway liquid sludge were generated. The sludge was dewatered at the 26<sup>th</sup> Ward, Hunts Point, and Oakwood Beach (transported by force main from Port Richmond), dewatering facilities. Table 3 and Table 4A of Appendix A contains the monthly liquid sludge production and allocation figures in dry metric tons for this reporting period.

## **II. ROCKAWAY LIQUID SLUDGE QUALITY**

### **A. METALS ANALYSES**

Table 5A of Appendix B summarizes the average monthly metals concentrations for the liquid sludge generated at the Rockaway WWTP. The monthly metals concentrations represent an arithmetic average of the results from the analyses of all samples of Rockaway sludge generated each month.

## **III. ROCKAWAY BIOSOLIDS ALLOCATIONS – N/A**

## **APPENDICES**

## **APPENDIX - A**

Table 3.....	Monthly Liquid Sludge Allocation
Table 4A.....	Monthly Liquid Sludge Allocations to Contractors
Table 4B.....	Monthly Biosolids Allocations to Contractors (N/A)

**Table 3**  
**Monthly Liquid Sludge Production**  
**Rockaway WWTP**

<b>Month</b>	<b>Liquid Sludge Production (DMT)*</b>
January-13	68
February-13	35
March-13	58
April-13	70
May-13	65
June-13	44
July-13	73
August-13	55
September-13	55
October-13	63
November-13	50
December-13	94
<b>TOTALS</b>	731

**Notes:**

\* Dewatered sludge production is expressed in dry metric tons (DMT)

**Table 4A**  
**Monthly Liquid Sludge Allocations**  
**Rockaway WWTP**

<b>Month</b>	<b>26th Ward (DMT)*</b>	<b>Bowery Bay (DMT)*</b>	<b>Hunts Point (DMT)*</b>	<b>Jamaica (DMT)*</b>	<b>Oakwood Beach (DMT)*</b>	<b>Red Hook (DMT)*</b>	<b>North River (DMT)*</b>	<b>Wards Island (DMT)*</b>	<b>PVSC (DMT)*</b>	<b>TOTALS (DMT)*</b>
Jan-13	29.00							31.00		60.00
Feb-13	72.00									72.00
Mar-13	53.00									53.00
Apr-13		34.00			30.00					64.00
May-13	19.00		24.00		24.00					67.00
Jun-13			31.00		88.00					119.00
Jul-13					57.00					57.00
Aug-13					45.00					45.00
Sep-13					27.00			18.00		45.00
Oct-13			16.00		27.00			29.00		72.00
Nov-13					43.00			28.00		71.00
Dec-13			19.00		40.00			21.00		80.00
<b>TOTALS</b>	<b>173.00</b>	<b>34.00</b>	<b>90.00</b>	<b>0.00</b>	<b>381.00</b>	<b>0.00</b>	<b>0.00</b>	<b>127.00</b>	<b>0.00</b>	<b>805.00</b>

**Notes:**

\*Liquid sludge transportation is expressed in dry metric tons (DMT).



## **APPENDIX - B**

Table 5A.....Monthly Average Metals Data for Liquid  
Sludge

Table 5B.....Monthly Average Metals Data for  
Biosolids (N/A)

**Table 5A**  
**Monthly Metals Concentrations for Liquid Sludge**  
**Rockaway WWTP**

Month	METALS										
	Arsenic mg/L	Beryllium mg/L	Cadmium mg/L	Chromium mg/L	Copper mg/L	Lead mg/L	Mercury mg/L	Molybdenum mg/L	Nickel mg/L	Selenium mg/L	Zinc mg/L
January-13	0.1200	0.0028	0.0856	0.3280	13.00	2.05	0.0139	0.0819	0.2550	0.0444	12.6
February-13	0.0952	0.0023	0.0686	0.2750	7.88	1.52	0.0135	0.0801	0.1960	0.0467	11.6
March-13	0.0752	0.0023	0.0598	0.2460	12.20	1.38	0.0168	0.0682	0.2060	0.0547	10.8
April-13	0.0899	0.0024	0.0500	0.2160	8.57	1.19	0.0107	0.0543	0.1890	0.0344	9.9
May-13	0.0750	0.0031	0.0488	0.2450	10.30	1.41	0.0162	0.0586	0.2090	0.0515	10.8
June-13	0.0748	0.0028	0.0485	0.2550	9.48	1.50	0.0129	0.0633	0.2030	0.0547	10.6
July-13	0.0941	0.0029	0.0592	0.3620	10.50	2.05	0.0176	0.0935	0.2820	0.0752	13.2
August-13	0.0814	0.0031	0.0244	0.2800	9.05	1.70	0.0131	0.0812	0.2240	0.0577	12.3
September-13	0.0589	0.0016	0.0386	0.2700	8.70	1.61	0.0151	0.0736	0.1910	0.0439	13.2
October-13	0.0603	0.0017	0.0351	0.2510	8.29	1.48	0.0138	0.0857	0.1910	0.0464	12.7
November-13	0.0444	0.0015	0.0333	0.2780	8.45	2.02	0.0201	0.0895	0.1840	0.0455	12.3
December-13	0.0442	0.0015	0.0315	0.2800	8.32	1.97	0.0188	0.0823	0.2060	0.0422	12.0

## **TALLMAN ISLAND**

**City of New York  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
Bureau of Wastewater Treatment**

**TALLMAN ISLAND  
WASTEWATER TREATMENT PLANT**

US EPA 40 CFR Part 503  
Use or Disposal of Sewage Sludge  
2013 Annual Report

Prepared for

**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**

Prepared by

City of New York, Department of Environmental Protection  
Bureau of Wastewater Treatment  
SPDES Compliance Section  
96-05 Horace Harding Expressway  
Corona, New York 11368  
(718) 595-5056



February 2014

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- Appendix B - Table 5A, Monthly Average Metals Data for Liquid Sludge  
Table 5B, Monthly Average Metals Data for Biosolids

Requisite information, specific to the Tallman Island WWTP is provided below.

FACILITY NAME	LOCATION	DEWATERING FACILITY	SPDES PERMIT #	CONTACT PERSON	PROCESS ENGINEER
Tallman Island Wastewater Treatment Plant	127-01 Powell Cove Blvd College Point., NY 11356	Yes	NY006239	Superintendent Mohammed Zaman (718) 353-5124	Carmelo Giorlandino

#### **Additional Permits**

Facility Name	Location	Permit Name	Permit #	Type of Permit (Federal, State)
Tallman Island Wastewater Treatment Plant	127-01 Powell Cove Blvd College Point., NY 11356	Title V	263020001200013	Federal

### **I. TALLMAN ISLAND LIQUID SLUDGE QUANTITIES**

#### **A. LIQUID SLUDGE PRODUCTION AND OUTGOING LIQUID SLUDGE ALLOCATIONS**

For the reporting period of January 1 through December 31, 2013 approximately **7,373** dry metric tons of Tallman Island liquid sludge were generated. The sludge was dewatered at the Bowery Bay, Hunts Point, and Wards Island, dewatering facilities. Table 3 and Table 4A of Appendix A contains the monthly liquid sludge production and allocation figures in dry metric tons for this reporting period.

## **II. TALLMAN ISLAND LIQUID SLUDGE QUALITY**

### **A. METALS ANALYSES**

Table 5A of Appendix B summarizes the average monthly metals concentrations for the liquid sludge generated at the Tallman Island WWTP. The monthly metals concentrations represent an arithmetic average of the results from the analyses of all samples of Tallman Island sludge generated each month.

## **III. TALLMAN ISLAND BIOSOLIDS ALLOCATIONS – N/A**

**NOTE:** The Tallman Island Dewatering Facility has been shut down for the reporting period of January 1 through December 31, 2013 due to treatment plant upgrade construction.



## **APPENDICES**

## **APPENDIX - A**

Table 3.....	Monthly Liquid Sludge Allocation
Table 4A.....	Monthly Liquid Sludge Allocations to Contractors
Table 4B.....	Monthly Biosolids Allocations to Contractors

**Table 3**  
**Monthly Liquid Sludge Production**  
**Tallman Island WWTP**

<b>Month</b>	<b>Liquid Sludge Production (DMT)*</b>
January-13	632
February-13	618
March-13	666
April-13	686
May-13	598
June-13	659
July-13	652
August-13	639
September-13	553
October-13	541
November-13	560
December-13	569
<b>TOTALS</b>	<b>7,373</b>

**Notes:**

\* Dewatered sludge production is expressed in dry metric tons (DMT)

**Table 4A**  
**Monthly Liquid Sludge Allocations**  
**Tallman Island WWTP**

<b>Month</b>	<b>26th Ward (DMT)*</b>	<b>Bowery Bay (DMT)*</b>	<b>Hunts Point (DMT)*</b>	<b>Jamaica (DMT)*</b>	<b>Oakwood Beach (DMT)*</b>	<b>Red Hook (DMT)*</b>	<b>North River (DMT)*</b>	<b>Wards Island (DMT)*</b>	<b>PVSC (DMT)*</b>	<b>TOTALS (DMT)*</b>
Jan-13		27.00	308.00		75.00			130.00		540.00
Feb-13			481.00					75.00		556.00
Mar-13		53.00	431.00					175.00		659.00
Apr-13		0.00	389.00					194.00		583.00
May-13		43.00	336.00		68.00			103.00		550.00
Jun-13		41.00	506.00					120.00		667.00
Jul-13		66.00	397.00					134.00		597.00
Aug-13		67.00	403.00					136.00		606.00
Sep-13		55.00	349.00					59.00		463.00
Oct-13		61.00	383.00					61.00		505.00
Nov-13		88.00	365.00					53.00		506.00
Dec-13			338.00					108.00		446.00
<b>TOTALS</b>	<b>0.00</b>	<b>501.00</b>	<b>4,686.00</b>	<b>0.00</b>	<b>143.00</b>	<b>0.00</b>	<b>0.00</b>	<b>1,348.00</b>	<b>0.00</b>	<b>6,678.00</b>

**Notes:**

\*Liquid sludge transportation is expressed in dry metric tons (DMT).

**Table 4B**  
**Monthly Biosolids Allocations to Contractors**  
**Tallman Island Dewatering Facility**

<b>Month</b>							<b>TOTALS</b> (DMT)*
	Tully Environmental Contract 947 ADM3 (DMT)*	EPIC (Landfill) Contract 1247-BIO (DMT)*	Coastal Distributions Contract 1250-BIO (DMT)*	Interstate Waste Services Contract 1280-BIO (DMT)*	We Care Organics Contract 1236-BIO (DMT)*	We Care Organics Contract 1308-BIO (DMT)*	
Jan-13							0.00
Feb-13							0.00
Mar-13							0.00
Apr-13							0.00
May-13							0.00
Jun-13							0.00
Jul-13							0.00
Aug-13							0.00
Sep-13							0.00
Oct-13							0.00
Nov-13							0.00
Dec-13							0.00
<b>TOTALS</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>		<b>0.00</b>

**Notes:**

\*Biosolids allocation is expressed in dry metric ton

Tallman Island Dewatering Facility shut down in July 2009 due to plant upgrade.

## **APPENDIX - B**

Table 5A.....Monthly Average Metals Data for Liquid  
Sludge

Table 5B.....Monthly Average Metals Data for  
Biosolids

**Table 5A**  
**Monthly Metals Concentrations for Liquid Sludge**  
**Tallman Island WWTP**

Month	METALS										
	Arsenic mg/L	Beryllium mg/L	Cadmium mg/L	Chromium mg/L	Copper mg/L	Lead mg/L	Mercury mg/L	Molybdenum mg/L	Nickel mg/L	Selenium mg/L	Zinc mg/L
January-13	0.0767	0.0025	0.0440	0.4130	5.96	1.31	0.0159	0.0652	0.2600	0.0467	10.6
February-13	0.0878	0.0021	0.0437	0.4120	5.79	1.27	0.0180	0.0763	0.2200	0.0507	10.9
March-13	0.0965	0.0023	0.0480	0.4560	6.08	1.42	0.0273	0.0643	0.2460	0.0498	11.5
April-13	0.0945	0.0025	0.0388	0.4620	6.51	1.25	0.0144	0.0663	0.2730	0.0617	12.5
May-13	0.0826	0.0029	0.0742	0.5660	6.33	1.43	0.0180	0.0670	0.3270	0.0626	12.9
June-13	0.0877	0.0033	0.0514	0.5240	6.77	1.71	0.0148	0.0675	0.3030	0.0646	12.3
July-13	0.0816	0.0029	0.0493	0.5130	7.53	1.82	0.0194	0.0890	0.3200	0.0618	13.6
August-13	0.0843	0.0036	0.0220	0.4780	8.75	2.00	0.0202	0.0989	0.4830	0.0758	16.0
September-13	0.0668	0.0019	0.0376	0.3600	7.02	1.50	0.0164	0.0859	0.2820	0.0606	11.3
October-13	0.0694	0.0018	0.0341	0.3600	8.04	1.51	0.0212	0.0866	0.2630	0.0755	12.1
November-13	0.0722	0.0021	0.0387	0.4200	11.30	1.72	0.0216	0.1060	0.3190	0.0870	14.4
December-13	0.0818	0.0018	0.0359	0.4550	9.17	1.74	0.0192	0.1020	0.3160	0.0796	13.4

**Table 5B**  
**Monthly Metals Concentrations for Biosolids**  
**Tallman Island Dewatering Facility**

Month	METALS									
	Arsenic mg/Kg	Cadmium mg/Kg	Chromium mg/Kg	Copper mg/Kg	Lead mg/Kg	Mercury mg/Kg	Molybdenum mg/Kg	Nickel mg/Kg	Selenium mg/Kg	Zinc mg/Kg
January-13										
February-13										
March-13										
April-13										
May-13										
June-13										
July-13										
August-13										
September-13										
October-13										
November-13										
December-13										

Tallman Island Dewatering Shut Down for Construction.



## **WARDS ISLAND**

**City of New York  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
Bureau of Wastewater Treatment**

**WARDS ISLAND  
WASTEWATER TREATMENT PLANT**

US EPA 40 CFR Part 503  
Use or Disposal of Sewage Sludge  
2013 Annual Report

Prepared for

**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**

Prepared by

City of New York, Department of Environmental Protection  
Bureau of Wastewater Treatment  
SPDES Compliance Section  
96-05 Horace Harding Expressway  
Corona, New York 11368  
(718) 595-5056



February 2014

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Requisite information, specific to the Wards Island WWTP is provided below.

FACILITY NAME	LOCATION	DEWATERING FACILITY	SPDES PERMIT #	CONTACT PERSON	PROCESS ENGINEER
Wards Island Wastewater Treatment Plant	Wards Island New York, NY 10035	Yes	NY0026131	Superintendent John McCabe (212) 860-9351	Steven Moltz

#### **Additional Permits**

Facility Name	Location	Permit Name	Permit #	Type of Permit (Federal, State)
Wards Island Wastewater Treatment Plant	Wards Island New York, NY 10035	Air State Facility Permit	262030000500049	State

### **I. WARDS ISLAND LIQUID SLUDGE QUANTITIES**

#### **A. LIQUID SLUDGE PRODUCTION AND OUTGOING LIQUID SLUDGE ALLOCATIONS**

For the reporting period of January 1 through December 31, 2013 all anaerobically digested, thickened sewage sludge generated at Wards Island was dewatered at the Wards Island sludge dewatering facility. Approximately **25,006** dry metric tons of Wards Island sludge were generated. Table 3 and Table 4A of Appendix A contains the monthly liquid sludge production and allocation figures in dry metric tons for this reporting period.

## II WARDS ISLAND LIQUID SLUDGE AND BIOSOLIDS QUALITY

### A. METALS ANALYSES

Table 5A and Table 5B of Appendix B summarize the average monthly metals concentrations for the liquid sludge and biosolids generated at the Wards Island WWTP. The monthly metals concentrations represent an arithmetic average of the results from the analyses of all samples of Wards Island biosolids generated each month.

During this reporting period, Wards Island biosolids contained concentrations of metals that always met the **Ceiling Concentration Limits** for twelve (12) months as listed in *Table 1 of 40 CFR Part 503.13(b)(1)*. Further, during twelve (12) months in 2013, Wards Island biosolids contained concentrations of metals that met the **Pollutant Concentration Limits** as listed in *Table 3 of 40 CFR Part 503.13(b)(1)*.

### **III. WARDS ISLAND BIOSOLIDS ALLOCATIONS**

**BIOSOLIDS FROM THE WARDS ISLAND WASTEWATER TREATMENT PLANT DISTRIBUTED TO SLUDGE MANAGEMENT CONTRACTORS AT THE WARDS ISLAND DEWATERING FACILITY. (SUMMARY IS SHOWN IN TABLE 4B IN APPENDIX B).**

#### **A. Tully Environmental under Contract 947ADM3**

Approximately **634.93** dry metric tons of the biosolids mix were distributed to **Tully Environmental** (see introduction for processing details) from the Wards Island dewatering facility during this reporting period.

#### **B. EPIC under Contract 1247-BIO**

Approximately **7,320.02** dry metric tons of the biosolids mix were distributed to **EPIC** (see introduction for processing details) from the Wards Island dewatering facility during this reporting period.

#### **C. Coastal Distribution under Contract 1250-BIO**

Approximately **7,808.74** biosolids mix from the Wards Island dewatering facility was distributed to **Coastal Distribution** (see introduction for processing details) from the Wards Island dewatering facility during this reporting period.

#### **D. Interstate Waste Services under Contract 1280-BIO**

Approximately **252.42** dry metric tons of the biosolids mix were distributed to **Interstate Waste Services** (see introduction for processing details) from the Wards Island dewatering facility during this reporting period.

#### **E. We Care Organics under Contract 1236-BIO**

Approximately **7,560.58** dry metric tons of the biosolids mix were distributed to **We Care Organics** (see introduction for processing details) from the Wards Island dewatering facility during this reporting period.

**F. We Care Organics under Contract 1308-BIO**

Approximately **3,584.72** dry metric tons of the biosolids mix were distributed to **We Care Organics** (see introduction for processing details) from the Wards Island dewatering facility during this reporting period.

Table 2 in the introduction contains requisite information specific to each of the eight sludge management contractors.



## **APPENDICES**

## **APPENDIX - A**

Table 3.....	Monthly Liquid Sludge Allocation
Table 4A.....	Monthly Liquid Sludge Allocations to Contractors
Table 4B.....	Monthly Biosolids Allocations to Contractors

**Table 3**  
**Monthly Liquid Sludge Production**  
**Wards Island WWTP**

<b>Month</b>	<b>Liquid Sludge Production (DMT)*</b>
January-13	1,653
February-13	1,932
March-13	1,875
April-13	2,370
May-13	2,296
June-13	1,825
July-13	1,884
August-13	1,873
September-13	1,902
October-13	2,059
November-13	2,182
December-13	3,154
<b>TOTALS</b>	<b>25,006</b>

**Notes:**

\* Dewatered sludge production is expressed in dry metric tons (DMT).

**Table 4A**  
**Monthly Liquid Sludge Allocations**  
**Wards Island WWTP**

<b>Month</b>	<b>26th Ward (DMT)*</b>	<b>Bowery Bay (DMT)*</b>	<b>Hunts Point (DMT)*</b>	<b>Jamaica (DMT)*</b>	<b>Oakwood Beach (DMT)*</b>	<b>Red Hook (DMT)*</b>	<b>North River (DMT)*</b>	<b>Wards Island (DMT)*</b>	<b>PVSC (DMT)*</b>	<b>TOTALS (DMT)*</b>
Jan-13										0.00
Feb-13										0.00
Mar-13										0.00
Apr-13										0.00
May-13										0.00
Jun-13										0.00
Jul-13										0.00
Aug-13										0.00
Sep-13										0.00
Oct-13										0.00
Nov-13										0.00
Dec-13										0.00
<b>TOTALS</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>

**Notes:**

\*Liquid sludge transportation is expressed in dry metric tons (DMT).

**Table 4B**  
**Monthly Biosolids Allocations to Contractors**  
**Wards Island Dewatering Facility**

<b>Month</b>							<b>TOTALS</b>  (DMT)*
	Tully Environmental Contract 947 ADM3 (DMT)*	EPIC (Landfill) Contract 1247-BIO (DMT)*	Coastal Distributions Contract 1250-BIO (DMT)*	Interstate Waste Services Contract 1280-BIO (DMT)*	We Care Organics Contract 1236-BIO (DMT)*	We Care Organics Contract 1308-BIO (DMT)*	
Jan-13		229.43	1689.86				1,919.29
Feb-13		757.49	1738.25				2,495.75
Mar-13		1079.32	1236.31	137.07			2,452.70
Apr-13	552.84	949.10	1091.87				2,593.81
May-13	82.09	42.18	2052.44				2,176.71
Jun-13		839.27		28.83	817.99		1,686.09
Jul-13		325.83			1531.31		1,857.14
Aug-13		685.54		28.25	1510.75		2,224.54
Sep-13		527.01			1571.28		2,098.28
Oct-13		880.38			1556.98		2,437.36
Nov-13		465.91			572.27	1267.78	2,305.97
Dec-13		538.56		58.27		2316.94	2,913.78
<b>TOTALS</b>	<b>634.93</b>	<b>7,320.02</b>	<b>7,808.74</b>	<b>252.42</b>	<b>7,560.58</b>	<b>3,584.72</b>	<b>27,161.41</b>

**Notes:**

\*Biosolids allocation is expressed in dry metric tons (DMT).

## **APPENDIX - B**

Table 5A.....Monthly Average Metals Data for Liquid  
Sludge

Table 5B.....Monthly Average Metals Data for  
Biosolids

**Table 5A**  
**Monthly Metals Concentrations for Liquid Sludge**  
**Wards Island WWTP**

Month	METALS										
	Arsenic mg/L	Beryllium mg/L	Cadmium mg/L	Chromium mg/L	Copper mg/L	Lead mg/L	Mercury mg/L	Molybdenum mg/L	Nickel mg/L	Selenium mg/L	Zinc mg/L
January-13	0.0607	0.0031	0.0725	0.5440	10.20	2.08	0.0530	0.1160	0.3100	0.0650	16.0
February-13	0.0682	0.0031	0.0700	0.5220	9.73	1.90	0.0461	0.1120	0.3220	0.0656	15.3
March-13	0.0663	0.0032	0.0750	0.6080	9.93	2.12	0.0300	0.1190	0.3270	0.0722	16.5
April-13	0.0631	0.0032	0.0526	0.4750	8.55	1.65	0.0168	0.1040	0.2610	0.0638	14.0
May-13	0.0663	0.0043	0.0674	0.6380	9.39	2.29	0.0236	0.1130	0.3360	0.0717	16.5
June-13	0.0613	0.0040	0.0644	0.6170	9.57	2.48	0.0352	0.1090	0.3260	0.0706	15.2
July-13	0.0545	0.0035	0.0663	0.6410	10.70	2.66	0.0226	0.1750	0.3240	0.0680	16.7
August-13	0.0548	0.0040	0.0300	0.5870	11.90	2.66	0.0211	0.1400	0.3250	0.0810	17.2
September-13	0.0443	0.0022	0.0482	0.5850	10.60	2.37	0.0197	0.1330	0.2810	0.0662	15.1
October-13	0.0445	0.0021	0.0455	0.4920	10.70	1.97	0.0182	0.1310	0.2390	0.0728	13.6
November-13	0.0444	0.0022	0.0555	0.5590	12.60	2.19	0.0225	0.1820	0.2750	0.0773	16.0
December-13	0.0442	0.0020	0.0570	0.6520	12.10	2.23	0.0201	0.1560	0.3190	0.0721	15.4

**Table 5B**  
**Monthly Metals Concentrations for Biosolids**  
**Wards Island Dewatering Facility**

Month	METALS									
	Arsenic mg/Kg	Cadmium mg/Kg	Chromium mg/Kg	Copper mg/Kg	Lead mg/Kg	Mercury mg/Kg	Molybdenum mg/Kg	Nickel mg/Kg	Selenium mg/Kg	Zinc mg/Kg
January-13	3.33	5.67	40.3	633.0	140.0	1.6	11.2	20.7	4.5	998.0
February-13	4.48	5.59	41.0	594.0	125.0	1.3	8.8	19.5	4.9	961.0
March-13	3.97	5.42	44.5	588.0	139.0	1.9	7.5	21.0	4.1	979.0
April-13	4.14	4.95	45.4	567.0	127.0	1.7	10.0	20.1	5.1	931.0
May-13	3.64	4.41	42.5	545.0	133.0	1.4	8.2	18.8	5.2	913.0
June-13	3.12	4.71	43.40	503.00	155.0	1.5	7.2	20.7	4.4	890.0
July-13	1.93	4.06	40.60	602.00	165.0	1.7	12.5	19.0	3.3	997.0
August-13	2.85	1.83	40.30	601.00	148.0	1.7	9.6	20.8	4.2	1040.0
September-13	2.43	3.21	36.80	640.00	150.0	1.4	9.5	17.0	4.0	965.0
October-13	3.08	4.31	39.60	746.00	153.0	1.5	16.6	19.1	4.9	1022.0
November-13	2.21	4.34	46.20	704.00	145.0	1.6	15.2	19.2	3.7	991.0
December-13	2.20	3.68	39.60	660.00	161.0	1.9	11.8	22.8	3.4	895.0



**City of New York  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
Bureau of Wastewater Treatment**

**CONTRACTORS' ISSUES**

US EPA 40 CFR Part 503  
Use or Disposal of Sewage Sludge  
2013 Annual Report

Prepared for

**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**

Prepared by

City of New York, Department of Environmental Protection  
Bureau of Wastewater Treatment  
SPDES Compliance Section  
96-05 Horace Harding Expressway  
Corona, New York 11368  
(718) 595-5056



February 2014

## **CONTRACTORS' ISSUES**

There were not issues with any of the contracts for the reporting period of January 1 through December 31, 2013.